PHILIPS VR-1000

MODEL

USER'S MANUAL

TABLE OF CONTENTS

Safety Precautions

WARNING: DANGEROUS VOLTAGE INSIDE

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

- The STANDBY/ON and VCR POWER buttons do not completely shut off the mains power from the unit, but switch operating current on or off only.
- The rating plate is on the rear of the unit.

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VIDEO Plus+

S-VHS 625

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Introduction

Congratulations on purchasing your new VCR.
You can't wait to get it working, but before you do, spare a few moments to read this brief introduction to the world of video recording. It may repay you handsomely in terms of improved results, and avoiding of costly mistakes.

Important for the United Kingdom.

This machine is fitted with an approved moulded 13 Amp plug. To change a fuse in this type of plug, please follow these instructions.

1. Take off the fuse cover and take out the fuse.
2. Put in a new fuse which should be a BS1362 3A, A.S.T.A or BSI approved type.
3. Refit the fuse cover.

If the plug fitted is not suitable for your socket, cut it off and fit another type.

If the plug you fit contains a fuse, it should be a 3Amp fuse. If you fit a plug which does not need a fuse, make sure the fuse on your fuse box is not greater than 5 Amps.

i Note: Please destroy the plug you have cut off so that it cannot be used in a 13 Amp socket somewhere else.

How to connect a plug

The wires in the lead from the video recorder are coloured as follows.

* Blue - 'neutral' ('N')

* Brown - 'live' ('L')

4. Connect the blue wire to the terminal in the plug which is marked with the letter 'N' or coloured black.
5. Connect the brown wire to the terminal in the plug which is marked with the letter 'L' or coloured red.
6. Do not connect either of the wires to the terminal in the plug which is marked with the letter 'E', the symbol ⏚ or coloured green or green and yellow.

Before you refit the plug cover, make sure that the grip at the bottom of the plug is clamped over the plastic cover of the lead, not just over the two wires.

SOME DO'S AND DONT'S

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

DO read the operating instructions before you attempt to use the equipment.
DO ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug when making or changing connections.
DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.
DO be careful with glass panels or doors on equipment.

DON'T continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way — switch off, withdraw the mains plug and consult your dealer.
DON'T remove any fixed cover as this may expose dangerous voltages.
DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off using the switch on the equipment and make sure that your family knows how to do this. Special arrangements may need to be made for infirm or handicapped people.
DON'T use equipment such as personal stereos or radios so that you are distracted from the requirements of road safety. It is illegal to watch television whilst driving.
DON'T listen to headphones at high volume, as such use can permanently damage your hearing.
DON'T obstruct the ventilation of the equipment, for example with curtains or soft furnishings. Overheating will cause damage and shorten the life of the equipment.
DON'T use makeshift stands and NEVER fix legs with wood screws — to ensure complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.
DON'T allow electrical equipment to be exposed to rain or moisture.

ABOVE ALL...

— **NEVER** let anyone especially children push anything into holes, slots or any other opening in the case — this could result in a fatal electrical shock;
— **NEVER** guess or take chances with electrical equipment of any kind — it is better to be safe than sorry!

Positioning

Do not place the VCR directly on top of or underneath your TV set. Ensure that there is at least 20 cm between the VCR and the TV set, and that air can circulate freely through the ventilation openings of the VCR.

IMPORTANT

Audio-Visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright.
Please refer to relevant laws in your country.

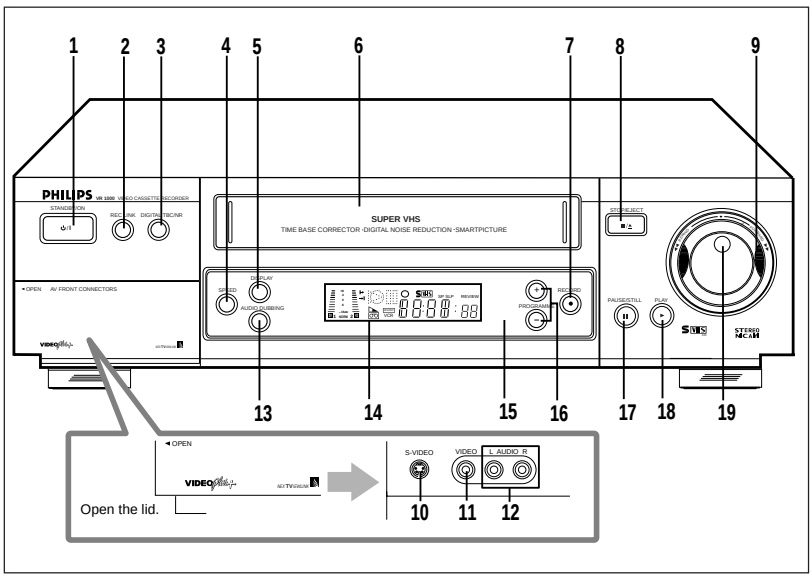
WARNING

Any unauthorized changes or modifications to this equipment void the user's authority to operate it.

This product complies with the requirements of the directive 73/23/EEC+89/336/EEC+93/68/EEC.

DESCRIPTION OF CONTROLS

Front Panel



1 STANDBY/ON button

- Turns the VCR on or off.
- Sets the VCR for an unattended recording (timer recording) after timer settings are completed. (☞P.29, P.30)

2 REC LINK button

Engages auto satellite programme record mode. The lamp (the button itself) will light. (☞P.28)

3 DIGITAL TBC/NR button

Removes jitter from fluctuating video to deliver a stable picture. The lamp (the button itself) will light. (☞P.25)

4 SPEED button

Selects the tape speed for recording (SP, LP). During playback, the tape speed is automatically selected (SP, LP or EP (for NTSC signal only). (☞P.22, P.29, P.30)

SP, LP : For PAL signal
SP, EP : For NTSC signal

5 DISPLAY button

Switches display between present time, tape remaining time, time counter and channel position. (☞P.22)

6 Cassette compartment

Where a video cassette is inserted.

7 RECORD ● button

- Starts recording when pressed once. (☞P.22)
- Starts a recording for 30 minutes to 6 hours long when pressed more than once. The shut-off time increases in 30 minute intervals. (☞P.26)

8 STOP/EJECT ■ / ⏏ button

Stops the tape when the tape is running. (☞P.21, P.22)
Press again to eject the cassette when the tape is not running. (☞P.21, P.22)

9 SHUTTLE ring

- Rewinds or fast forwards the tape when the tape is not running. (☞P.23)
- Starts reverse or forward rapid visual search during playback or still picture mode. (☞P. 21, P.23)

10 S-VIDEO input jack

For connecting to the S-Video output jack on another VCR or a portable video camera. (☞P.32)

11 VIDEO input jack

For connecting to the video output jack on another VCR or a portable video camera. (☞P.32)

12 AUDIO input jacks

For connecting to the audio output jacks on another VCR or a portable video camera. (☞P.32)

13 AUDIO DUBBING button

Replaces the normal audio sound of a previously recorded tape with a new soundtrack, using an audio component (☞P.33)

14 Display window

See page 8.

15 IR (infrared) remote sensor

Receives the signal from the (IR) remote control.

16 PROGRAMME +/- buttons

- Changes the channels on the VCR. Release at a desired channel.
- Adjusts the tracking during playback, and slow motion picture. (☞P.23)

17 PAUSE/STILL ❚❚ button

Stops the tape during recording (pause) or playback (still picture). (☞P.21, P.22)
Press PLAY ► to resume normal playback or recording.
Activates slow motion picture when pressed for more than 2 seconds during playback. (☞P.23)

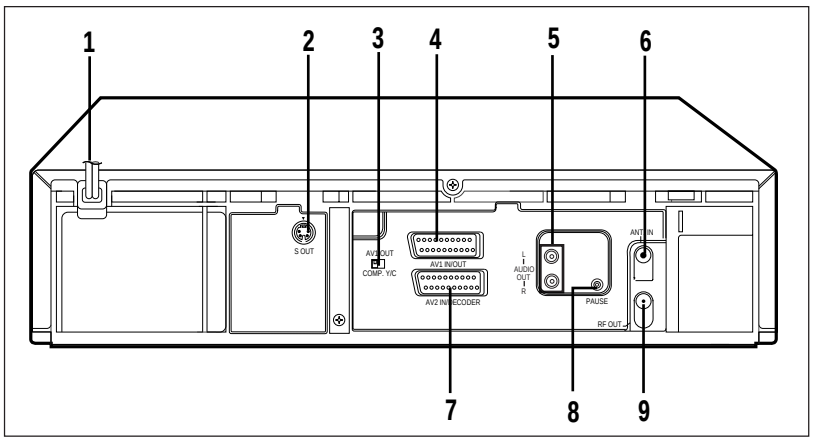
18 PLAY ► button

Starts normal playback. (☞P.21)

19 Jog dial

Advances or reverses the picture frame by frame in the still picture mode. (☞P.23)

Rear Panel



1 AC (alternating current) power cord
Connect the AC power cord to an AC outlet.

2 S-VIDEO out jack
For connecting to the S-Video input jack on a TV or another VCR. (☞P.9, P.32)

3 AV1 OUT switch
Selects the type of signal output via the 21 pin AV1 IN/OUT connector. (☞P.9)

4 AV1 IN/OUT Connector (SCART)
For connecting to the AV terminal on TV or another VCR. (☞P.9, P.32)

5 AUDIO OUT jacks
For connecting to the audio input jack on a TV or another VCR. (☞P.9, P.32)

6 ANT. (antenna) IN (input) terminal (from Antenna)
Connect your antenna or Cable to this terminal. (☞P.9)

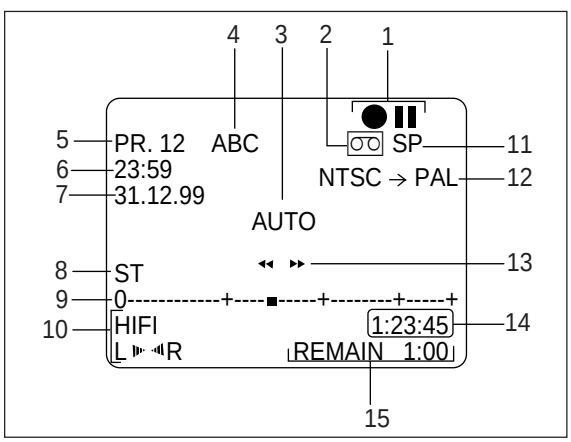
7 AV2 IN/DECODER Connector
For connecting to the AV terminal on another VCR, satellite tuner or decoder. (☞P.32, P.34, P.35)

8 Remote PAUSE Connector
Enables connection to second recorder equipped with R.A. Edit connector.

9 RF OUT (output) terminal (to TV)
Use the supplied RF coaxial cable to connect this terminal to the UHF/VHF input terminal on the TV. (☞P.9)

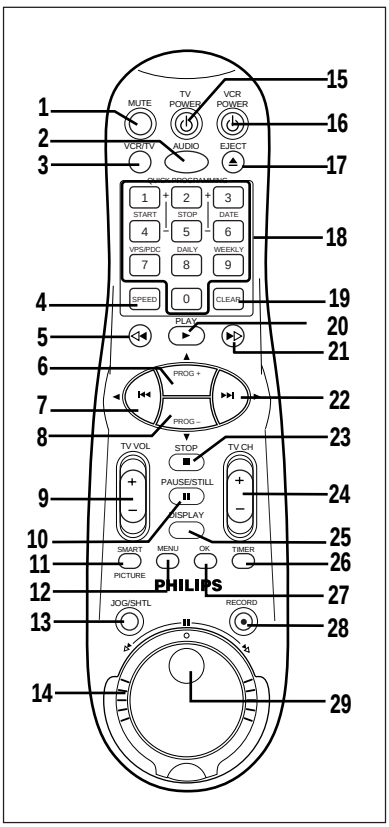
On-Screen Display

The following information (VCR operating status) appears on the TV screen. (☞P.26)



1. Operation mode
2. Cassette-In Indicator
3. SmartPicture setting or Timer warning display
4. TV station name
5. Channel position number
6. Current time
7. Current date
8. Received broadcast
9. Tape position indicator
10. Sound output mode
11. Tape speed
12. NTSC playback display
13. Tape direction
14. Counter display
15. Tape remaining time indicator

Remote Control



Using this remote control to operate TV

You can use this remote control to operate PHILIPS TV and other manufacturers' TV.

To operate TV, see page 36.

1 MUTE button

Minimizes the TV volume instantly. Press again to return to the previous volume level.

2 AUDIO button

Selects the sound output mode. (☞P.25)

3 VCR/TV button

ONLY FOR SCART CONNECTION (☞P.8) USERS:
Switches TV mode between AV and TV. When pressed and VCR indicator on the display window lights, TV mode changes to AV mode.
When pressed and VCR indicator goes off, TV mode changes to TV mode.

4 SPEED button

- Selects the tape speed for recording (SP or LP). During playback, the tape speed is automatically selected (SP or LP). (☞P.22, P.29, P.30)
- Enables/disables auto tracking mode during playback (☞P.23).

5 ◁◄ button

Rewinds the tape. Also, during playback, starts rapid reverse visual search.

6 PROG. +/▲ button

- Moves up the channel position on the VCR.
- Moves up the cursor when using the VCR menus.
- Adjusts the tracking during playback and slow motion picture (☞P.23).

7 I◄◄/◄ button

- Locates an index marked at the beginning of every recording. (☞P.23)
- Goes back to the previous menu screen when using the menus.

8 PROG. –/▼ button

- Moves down the channel position on the VCR.
- Moves down the cursor when using the menus.
- Adjusts the tracking during playback, and slow motion picture (☞P.23).

9 TV VOL (volume) +/– buttons

Changes the TV volume.
Release at desired volume.

10 PAUSE/STILL ❚❚ button

Stops the tape during recording (pause) or playback (still picture).
Press PLAY ► to resume normal playback or recording.
Activates slow motion picture when pressed for more than 2 seconds during playback. (☞P.23)

11 SMARTPICTURE button

Selects the SmartPicture mode. (☞P.24)

12 MENU button

Calls up the main menu.

13 JOG/SHTL (Shuttle) button and lamp

Activates the jog dial and shuttle ring on the remote control when the lamp (the button itself) is lit. (☞P.23)

14 Shuttle ring

Starts reverse or forward rapid visual search during playback or still picture mode. (☞P.23)

15 TV POWER button

Turns the TV on or off.

16 VCR POWER button

- Turns the VCR on or off.
- Sets the VCR for an unattended recording (timer recording) after timer settings are completed.

17 EJECT ≜ button

Ejects the cassette. (☞P.21, P.22)

18 Number buttons (0, 1, 2, 3, 4, 5, 6, 7, 8 and 9)

- Selects a channel position on the VCR.
  To select channel positions 1 to 9, press 0 then the channel position you want. For example, for channel position 4, press 0 then 4.
- Also used to programme the Timer Recordings. (☞P.29, P.30)

19 CLEAR button

- Erases unwanted timer programmes. (☞P.31)
- Resets counter to 0:00:00.

20 PLAY ► button

Starts normal playback.(☞P.21)

21 ►▷ button

Fast forwards the tape. Also, during playback, starts rapid forward visual search.(☞P.21)

22 ►►I /► button

- Locates an index marked at the beginning of every recording.(☞P.23)
- Selects the items on the menus or goes to the next menu screen when using the menus.

23 STOP ■ button
Stops the tape.

24 TV CH +/– button
Changes the TV channels. Release at a desired channel.

25 DISPLAY button
Switches display between present time, tape remaining time, time counter and channel position. (☞P.22)

26 TIMER button
Displays the Timer Recording menu. (☞P.29, P.30)

27 OK button
Changes the selection when using the menus.

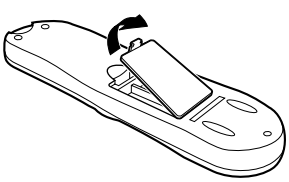
28 RECORD ● button
- Starts recording when pressed once. (☞P.22)
- Starts a recording for 30 minutes to 6 hours long. When pressed more than once, the shut-off time increases in 30-minute intervals. (☞P.26)

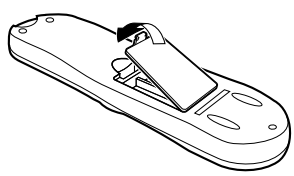
29 Jog dial
Advances or reverses the picture frame by frame in the still picture mode. (☞P.23)

Note:
The following buttons will light for 10 seconds when you press one of them.
- *PROG. +/▲*
- *PROG. –/▼*
- *I◄◄/◄*
- *►►I/►*
- *TV VOL (ume) +/–*
- *TV CH (annel) +/–*

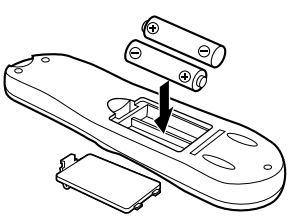
To insert the batteries:

1 Remove the battery compartment lid from the bottom of the remote control.





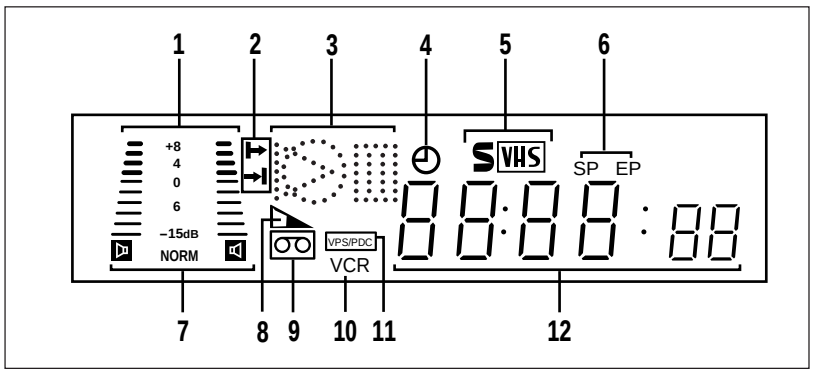
2 Install two AA batteries — R6(SUM-3)/AA — matching polarity indicated inside the battery compartment.



Note:
This remote control and batteries are supplied accessories.
Check to make sure they are included.
Also, check "Specifications" to see what other accessories are included.

CAUTION
On Battery Replacement
Do not mix old and new batteries. (Also never mix alkaline batteries with manganese batteries.)

Display Window



1 Sound level indicator
Indicates the audio signal level.

2 Programme Time Indicators
: Start programme time.
: Stop programme time.

3 Operation mode indicators
○ : Lights up during recording.
▷ : Lights up during playback.
▯▯ : Lights up during a pause.
: "▷" lights up and
"○" blinks during audio dubbing.

4 (Timer) indicator
Lights up when the VCR is set for an unattended recording (timer recording). (☞P.29, P.30)

5 S-VHS indicator
Lights up while playing a tape recorded in S-VHS format and while recording on an S-VHS tape using S-VHS format.

6 Speed indicator
Indicates the tape speed.
SP – Standard Play
LP – Long Play
EP – Super Long Play
(For NTSC playback only)

7 Sound output mode indicator
Indicates audio output mode currently selected. (☞P.25)

8 Tape Remaining Time indicator
Displays the time remaining on tape after pressing DISPLAY.

9 (Cassette-in) indicator
Lights up when there is a cassette in the VCR.

10 VCR indicator
Lights up when the VCR/TV button is pressed or when playback is started or when scrambled broadcast is received.

11 PDC indicator
Lights up when PDC is engaged for timer recording or when PDC signal is received.
VPS (Video Programme System) is not currently available in the U.K. and not possible with this VCR.

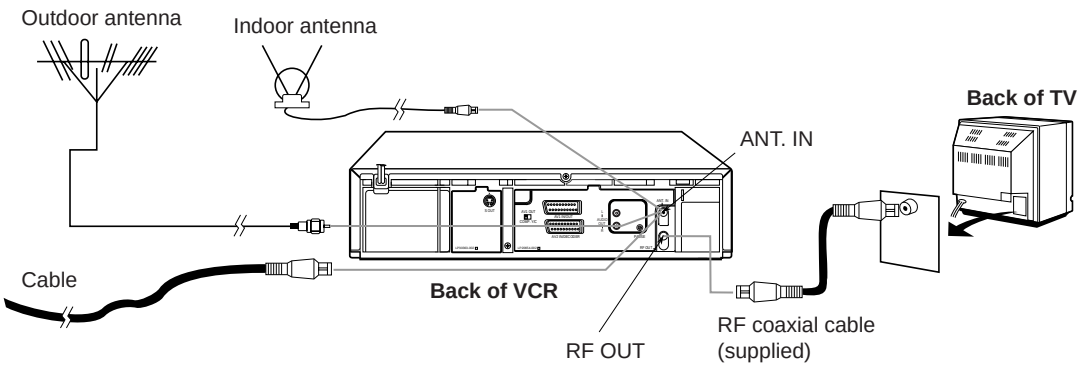
12 Digital clock/counter/ Channel indicator
- Normally the present time appears.
- When a tape is inserted, the time counter appears (and is reset to 0:00:00).
  If you always rewind your tapes completely, you can use this counter reading as an index to find where a programme starts.
- A channel position number selected with the TV tuner built in the VCR appears.
  When the external line input is selected, the following display appears:
  - "F-1" for the front panel Audio/ Video jacks.
  - "S-1" for the front panel Audio/S-Video jacks.
  - "L-1" for the rear panel AV1 IN/ OUT connector.
  - "L-2" for the rear panel AV2 IN/ DECODER connector.

VCR to TV Connection using the RF connection

Connection Diagram

To connect to a TV with No 21-pin AV input connector.

1. **Disconnect the antenna or cable from the TV and the AC power cord of the TV from the AC outlet.**
2. **Connect the antenna or cable to the VCR.**
3. **Connect the VCR to the TV using the RF coaxial cable.**
4. **Plug the AC power cords of the VCR and TV into the AC outlets.**

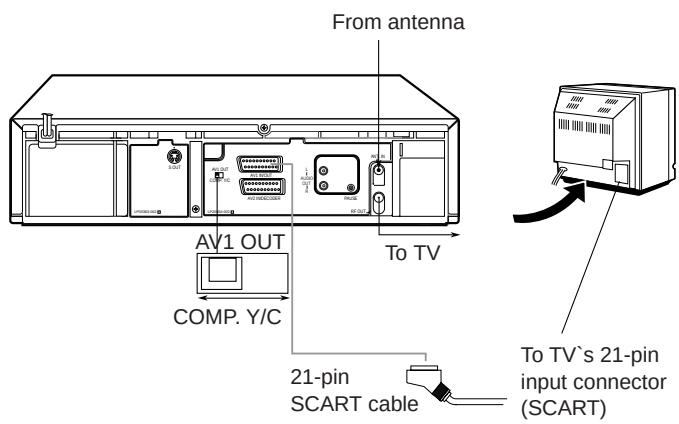


CAUTION
Do not plug the AC power cords until all connections are completed.

VCR to AV TV Connection Using the SCART Connection

Make this connection if your TV has a 21-pin AV input connector (SCART) in order to reduce the possibility of interference. And if you are using a stereo TV, you will need this cable in order to enjoy stereo playback of videotapes.

1. Complete the VCR to TV connection using RF Connection.
2. Connect the scart cable between the AV1 IN/OUT connector of the VCR and the TV's 21-pin AV input connector (SCART).
3. Set the AV1 OUT switch to either one of the following position,
   - COMP: If your TV's SCART is compatible only with the regular video signal.
   - Y/C: If your TV's SCART is compatible with a signal which the luminance and chrominance signals are separated (Y/C signal). This setting gives you high-quality S-VHS pictures.

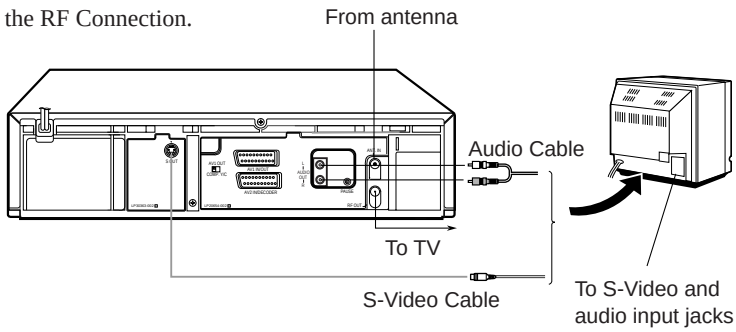


VCR to AV TV Connection Using the S-video Connection

To obtain high-quality S-VHS pictures and Hi-Fi sounds, you can also use the S-VIDEO CONNECTION described below;

1) Complete the VCR to TV connection using the RF Connection.

2) Connect an S-Video/Audio cables between the S-VIDEO OUT/AUDIO OUT jacks on the VCR and an S-Video/Audio input jacks on a TV.



Notes:

- **After you plug the AC power cord into an AC outlet, the Auto Set up/Preset Download display appears on the TV screen and on the VCR's display window when the STANDBY/ON or VCR POWER button is pressed for the first time to power on the VCR. Go to the next page to perform Auto Set Up or Preset Download.**
- **If you are using a Decoder and/or Satellite Tuner, see page 34 and 35 also.**

Auto Set Up/Preset Download

For the first time you press the STANDBY/ON button on the front panel or VCR POWER on the remote control to turn on the VCR after you plug the AC power cords, the Auto Set up/Preset Download display will appear on the TV screen and the VCR's display window.
If you use Auto Set Up function, the video channel (☞P.14), clock** and guide programme numbers** (☞P.20) are also set automatically.
If you use Preset Download function, the tuner channels are set by downloading preset data from TV.
Also, the clock** and guide programme numbers** (☞P.20) are set automatically. However, you can use this function only when you connect between VCR and TV equipped with T-V Link, EasyLink, Megalogic, SMARTLINK, Q-Link, DATALOGIC or NEXTVIEWLINK function via fully-wired 21-pin SCART cable.

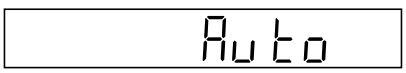
Preparation

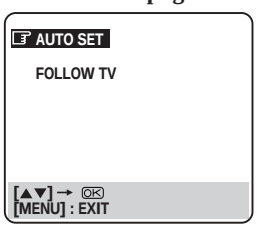
1 Make sure the TV antenna cable is connected correctly and the VCR's AC power cord is connected to the AC outlet.

2 If you want to use the on-screen display, set the TV to AV mode (with SCART or S-VIDEO CONNECTION ☞P.9 or P.10) or UHF channel 52 (with RF connection ☞P.9).

3 Turn on the VCR by pressing the STANDBY/ON button or VCR POWER.

4 The following display appears on the screen and/or display window.
- **If you use Auto Set Up function, go to Auto Set Up below.**
- **If you use Preset Download function, go to Preset Download on page 13.**



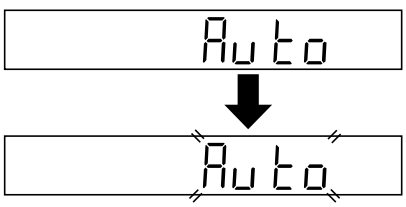


If you're using RF connection, and the on-screen display looks distorted, refer to the display window.

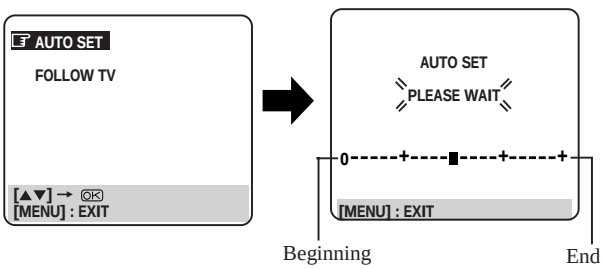
Auto Set Up

Before performing the following steps, be sure to finish Preparation above.

1 ● If you are referring to the display window, press ▲/▼ to select "Auto" and press OK or ►.



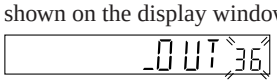
● If you are referring to the on-screen display, press ▲/▼ to select "AUTO SET" and press OK or ►.



As Auto Set Up progresses, the "■" mark moves from left to right.

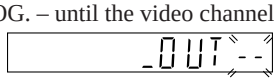
Do NOT press any button on the front panel or remote control until display window shows either the display as illustrated in step 2 or "– –:– –".

2 ● If you have connected the VCR to TV via an RF cable only (RF connection), the channel that is shown on the display window is your Video Channel.



To view picture signals from the VCR, set TV to the Video Channel. Refer to the instructions supplied with TV set for how to do this.

● If you have connected the VCR to TV via both an RF cable and a SCART cable or an S-Video cable (SCART connection or S-Video connection), you do not need the video channel so you have to set the video channel to off.
Press PROG. – until the video channel changes to "– –" (off).



To view picture signals from the VCR, set TV to its AV mode. Refer to the instructions supplied with TV set for how to do this.

To be continued on the next page

● If "– –:– –" appears, both Auto Channel Set and Auto Clock Set have failed.
Make sure the TV antenna cable is connected correctly and press OK to re-perform the Auto Set Up.

3 Press OK.

If the correct current time is displayed on the display window, the Auto Channel Set and Clock Set have been completed successfully. Go to step 4.

If "1" (channel position) is displayed on the display window, the Auto Clock Set has not completed (only the Auto Channel Set has). Go to step 4 and then perform "Clock Setting" manually. (☞P.20)

● You can check if the Guide Programme numbers have been set correctly when you perform VIDEO Plus+ Timer Recording (☞P.29); if the correct channel position number is displayed on VIDEO Plus+ Programme screen, this confirms that the Guide Programme number for the PlusCode number you enter has been set correctly.

4 Press PROG. +/– to make sure that all necessary stations have been stored in the VCR's memory.
● If station names (ID) (☞P.18) have also been stored in the VCR's memory, the station name will be displayed at the top left corner of the screen for about 5 seconds when the VCR is tuned to a different station.
● If you want to set the tuner manually such as to add or skip channels, to change channel positions, or to set station names, see pages 16–17.
● If no station is stored in the VCR's memory, make sure the TV antenna cable is connected correctly and turn off the VCR power once, then turn it back on again. Re-perform from Preparation on page 11.

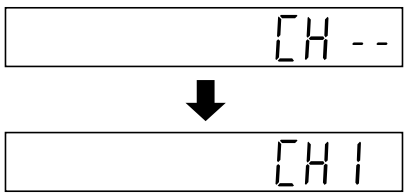
Notes:
- *Auto channel set function takes place first; it assigns automatically all receivable stations in your area.*
- *Auto clock set function sets the clock automatically by reading the clock setting data from a station transmitting a PDC signal while auto channel set is being performed.*
- *During auto channel set, the VCR recognizes each station name of the detected stations and stores them in the VCR's memory, then automatically sets VIDEO Plus+ system's assigned Guide Program number for those stations according to the broadcast area.*
- *In the area where no TV station transmits a PDC signal, the VCR can perform neither auto clock set nor auto Guide Program number set.*
- ***For RF connection users:** The VCR detects the channels which are not occupied by local stations and selects one channel automatically for your Video Channel that is located in the middle of more than 5 vacant channels.*
- *If there is a power cut, or if you press **STANDBY/ON, VCR POWER** or **MENU** while Auto Set Up is in progress, Auto Set Up will be interrupted; be sure to turn off the VCR power once and try again from step **1**.*
- *Auto clock may not function properly depending on the reception condition.*

IMPORTANT
- In certain reception conditions, station names may not be stored correctly, and auto Guide Programme Number Set may not work properly. If the Guide Programme numbers are not set properly, when you timer-record a TV programme using VIDEO Plus+ system, the VCR will record a TV programme of a different station. When programming the timer using VIDEO Plus+ system, be sure to check whether the channel position on which your VCR receives the broadcasting station you wish to record is selected. (☞P.29)
- Your VCR memorizes all detected stations even if reception of some of them is poor. In these cases picture quality may be poor. To delete those stations with an unacceptable picture, see page 16.
- For RF connection users: In certain reception conditions, the Video Channel may not be set correctly and interference may appear in the TV picture while the VCR's power is on. Set your Video Channel manually. (☞P.14)

Preset Download

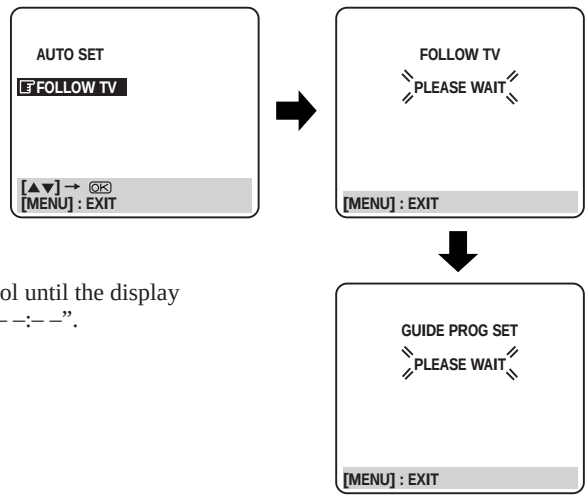
Before performing the following steps, be sure to finish Preparation on page 11.

1 ● If you are referring to the display window, press ▲/▼ to select "CH – –" and press OK or ►.



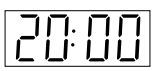
Channel position number increases from "CH 1".

● If you are referring to the on-screen display, press ▲/▼ to select "FOLLOW TV" and press OK or ►.

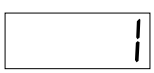


Do NOT press any button on the front panel or remote control until the display window shows either the display as illustrated in step 2 or "– –:– –".

2



If the correct current time is displayed on the display window, the Auto Channel Set and Clock Set have been completed successfully. Go to step 3.



If "1" (channel position) is displayed on the display window, the Auto Clock Set has not completed (only the Auto Channel Set has). Go to step 3 and then perform "Clock Setting" manually. (☞P.20)

● You can check if the Guide Programme numbers have been set correctly when you perform VIDEO Plus+ Timer Recording (☞P.29); if the correct channel position number is displayed on the VIDEO Plus+ Programme screen, this confirms that the Guide Programme number for the PlusCode number you enter has been set correctly.

3 Set the Video Channel manually. (☞P. 14)

4 Press PROG. +/– to make sure that all necessary stations have been stored in the VCR's memory.
- If station names (ID) (☞P.18) have also been stored in the VCR's memory, the station name will be displayed at the top left corner of the screen for about 5 seconds when the VCR is tuned to a different station.
- If you want to set the tuner manually such as to add or skip channels, to change channel positions, or to set station names, see pages 16–17.
- If no station is stored in the VCR's memory, make sure the SCART cable is connected correctly and press OK to re-perform Preset Download.

Notes:
- *In the area where no TV station transmits a PDC signal, the VCR can perform neither auto clock set nor auto Guide Programme number set.*
- *If there is a power cut, or if you press STANDBY/ON, VCR POWER or MENU while downloading or set up is on progress, it will be interrupted; be sure to turn off the VCR power once and try again from the beginning.*
- *Auto clock may not function properly depending on the reception condition.*
- *When you perform Preset Download function, be sure to use fullywired 21-pin SCART cable.*
- *On this VCR, the characters available for station's name (ID) are A-Z, 0-9, -, *, + and ⎵ (space). Some downloaded station's name may differ from those of your TV (☞P.18)*

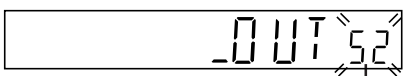
Important
- *In certain reception conditions, station names may not be stored correctly, and auto Guide Programme Number Set may not work properly. If the Guide Programme numbers are not set properly, when you timer-record a TV programme using VIDEO Plus+ system, the VCR will record a TV programme of a different station. When programming the timer using VIDEO Plus+ system, be sure to check whether the channel position on which your VCR receives the broadcasting station you wish to record is selected. (☞P.29)*

Setting the Video Channel

The video Channel (RF Output Channel) is the channel on which your TV receives picture and sound signals from the VCR through the RF cable.

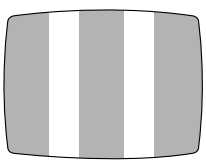
IMPORTANT
Perform the following steps only if –
– Video Channel Set has not been done correctly by the Auto Set Up function. (☞P.11)
– you set up the VCR's tuner by Preset Download (☞P.13) instead of using the Auto Set Up function.
– interference appears in the TV picture after you have moved to a different area or a new station has started broadcasting in your area.
– you change the connection between your recorder and TV from RF connection to Scart or S-Video connection, or vice versa.

1 Make sure the VCR is turned off and no cassette is inserted.
2 Turn on the TV, and tune it to any UHF channel (between 22 and 69) you want to use as the video channel on the TV.
• Select a channel not used in your area.
3 Press STOP/EJECT ■ /⏏ on the front panel for more than 5 seconds.
The following indication appears on the display.



Channel number starts flashing.

4 Press PROGRAMME or PROG. +/– to select the channel you have tuned on the TV as the video channel in step 2.
A test signal (two vertical white bars) appears on the TV.



Test signal (two vertical white bars)

If you use SCART connection or S-Video connection, *You do not need the video channel so you have to set the video channel to off. To turn it off, press PROGRAMME – or PROG. – until "– –" appears on the channel number position.*

5 Press OK to finish the video channel setting.

To watch a picture from this VCR on the TV, select the same channel you have selected as the video channel (in step 2 above) on the TV.

Power Save Mode

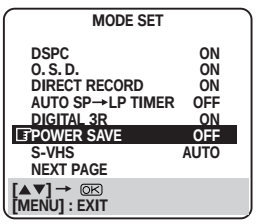
You can reduce the power consumption while the VCR is turned off.

1 Select Mode Set Screen

1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET" then press OK or ►.

2 Set Power Save Mode

Press ▲ or ▼ to select "POWER SAVE" then press OK or ► to set to "ON".



3 Finish Setting

Press MENU.

- *During Power Save, the display window will be turned off.*
- *The Just Clock function (☞P. 20) does not work while the Power Save mode is engaged.*
- *While the VCR is in the Power Save mode, the picture may be distorted momentarily when you turn on/off the VCR.*
- *Power Save does not work when ...*
  ... the VCR is in the Timer mode.
  ... the VCR's power is turned off after timer-recording (or One Touch Recording).
  ... the Auto Satellite Prog Recording mode is engaged (☞P. 28).
  ... "AV2 SELECT" is set to "DECODER" or "SAT" (☞P. 27).

Preset Download

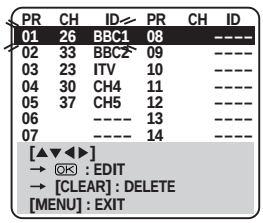
When you want to perform Preset Download after setting channels, perform the following procedure.
For the detail of Preset Download, see page 11-13.

1 Perform Preset Download

1 Press MENU.
2 Press ▲ or ▼ to select "AUTO CH SET", then press OK or ►.
3 Press ▲ or ▼ to select "FOLLOW TV", then press OK or ►. The Follow TV screen appears and then Guide Prog. Set screen appears.

2 Confirm Programmed Channel Information List

Once it is completed, "COMPLETED" is displayed on the screen for about 5 seconds.
The following screen will appear after 5 seconds, or if you press MENU;



PR: channel positions
CH: channel numbers
ID: station names (☞P.18)

- The blueback screen and the programme currently being broadcasted by the blinking station appear alternately for 8 seconds each.
- To view the next page, use the ▲▼ ◄► button on the remote control.
  The stations located in the selected country appear at the top of the list.
- The Guide Programme numbers will also be set automatically.

3 Finish Setting

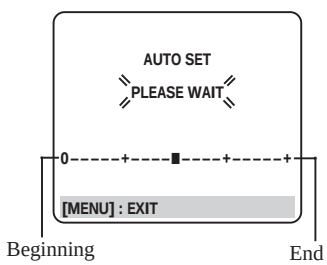
Press MENU to exit the menu operations.

Auto Channel Setting

If you move to another place, you may need to tune the VCR tuner again for your new residential area.

1 Perform Auto Channel Set

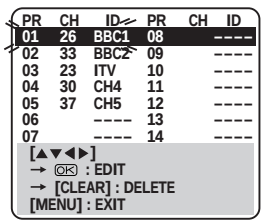
1 Press MENU.
2 Press ▲ or ▼ to select "AUTO CH SET", then press OK or ►.
3 Press ▲ or ▼ to select "AUTO SET", then press OK or ►. The Auto Set screen appears as below;



The Auto Set screen appears, and remains on screen while the VCR searches for receivable stations.
As Auto Channel Set progresses, the " ■ " mark on the screen moves from left to right.
Wait until the screen as shown in step 2 appears.

2 Confirm Programmed Channel Information List

Once it is completed, "SCAN COMPLETED" is displayed on the screen for about 5 seconds.
The following screen will appear after 5 seconds, or if you press MENU;



C: Cable
PR: channel positions
CH: channel numbers
ID: station names (☞P.18)

- The blueback screen and the programme currently being broadcasted by the blinking station
  apppear alternately for 8 seconds each.
- To view the next page, use the ▲▼ ◄► button on the remote control.
  The stations located in the selected country appear at the top of the list.
- The Guide Program numbers will also be set automatically during Auto Channel Set.

3 Finish Setting

Press MENU to exit the menu operations.

Notes:

- *If you perform Auto Channel Set when the aerial cable is not connected properly, "SCAN COMPLETED -NO SIGNAL-" appears on the screen in step 2. When this happens, make sure of the aerial connection and press OK; Auto Channel Set will take place again.*
- *Depending on reception conditions, the stations may not be stored in order, and the station names may not be stored correctly.*

Manual Channel Setting

When you want to do channel setting manually, perform the following procedures as required.

- If you want to .....
  - ..... add channels (See below)
  - ..... delete unwanted channels (See next column)
  - ..... change the channel positions (See next column)
  - ..... perform fine-tuning (See page 17)
  - ..... descramble programmes when receiving scrambled broadcasts (See page 17)
  - ..... change station names (See page 17)

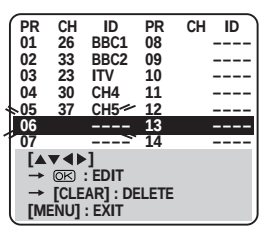
If you want to add channels

1 Access Programmed Channel Information List

1 Press MENU.
2 Press ▲ or ▼ to select "MANUAL CH SET", then press OK or ►.

2 Select Channel Position

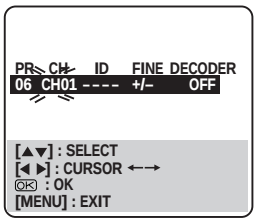
1 Press ▲▼ ◄► until a vacant position in which you want to store a channel begins blinking.
2 Press OK. The Manual Channel Set screen appears.



The blueback screen and the programme currently being broadcasted by the selected channel appear alternately for 8 seconds each.

3 Set New Channel Information

1 Press ▲ or ▼ to change the band between CH (regular) and CC (cable), then press ►.



The blueback screen and the programme currently being broadcasted by the selected channel appear alternately for 8 seconds each.

2 Press the Number buttons to input the channel you want to store.
- Input "0" before any single number entries.
- To input the registered station name (ID – ☞P.18), press ► until "----" (ID setting) begins blinking, then press ▲ or ▼.
- For fine tuning adjustment, press ► until "+/–" begins blinking, then press ▲ or ▼. While tuning, "+" or "–" appears.
- When storing a channel that sends scrambled broadcasts, press ► until "OFF" (Decoder setting) blinks, then press ▲ or ▼ to set DECODER" to "ON" ("OFF" is the default setting).
  When "AV2 SELECT" is set to "AV2" or "SAT", the "DECODER" setting cannot be changed (☞P.27).

If you want to delete unwanted channels

You can delete channels manually.

1 Press MENU.
2 Press ▲ or ▼ to select "MANUAL CH SET" then press OK or ►.
  The programmed channel information list appears.
3 Press ▲ or ▼ until the item you want to delete begins blinking.
4 Press CLEAR to delete.
  The item directly beneath the cancelled one moves up one line.
5 Press MENU to exit from the menu operations.

If you want to change the channel positions

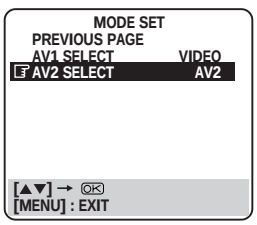
You can also replace the channel position numbers.

1 Press MENU.
2 Press ▲ or ▼ to select "MANUAL CH SET" then press OK or ►.
3 Press ▲ or ▼ until the item you want to change begins blinking, then press OK.
4 Press ▲ or ▼ to move the station to the new channel position then press OK.
  Example: If you moved the station in position 4 to position 2, the stations originally in positions 2 and 3 each move down one space.
5 Press MENU to exit from the menu operations.

If you want to descramble programmes when receiving scrambled broadcasts

When you can receive a scrambled broadcast, you can descramble the programme by connecting this VCR to an external decoder through the VCR's AV2 IN/DECODER connector. Complete the connection described on page 34 and follow the instructions below;

1 Press MENU to access main menu screen.
2 Press ▲ or ▼ to select "MODE SET", then press OK or ►.
The mode set screen appears.
3 Press ▲ or ▼ to select "AV2 SELECT".
4 Press OK or ► to select "DECODER" then press MENU to exit.



5 Press MENU again to access the main menu.
6 Press ▲ or ▼ to select "MANUAL CH SET", then press OK or ►.
The programmed channel information list appears.
7 Press ▲ ▼ ◄► to select the channel position broadcasting scrambled programmes, then press OK twice. The Manual Channel Set screen appears.
8 Press ► until "OFF" (Decoder setting) begins blinking, and set it to "ON" by pressing ▲ or ▼.
9 Press OK. The programmed channel information list appears.
10 Press MENU.

If you want to perform fine-tuning

Fine-tuning is performed automatically during Auto Channel Set, but you can also perform fine-tuning manually.

1 Press MENU.
2 Press ▲ or ▼ to select "MANUAL CH SET", then press OK or ►.
3 Press ▲▼ ◄► until the item you want to tune begins blinking. Press OK twice. The Manual Channel Set screen appears.
4 Press ► until "+/–" begins blinking, then press ▲ or ▼ until the picture is clearest.
5 Press OK. The programmed channel list appears.
6 Press MENU to exit the menu operations.

If you want to change station names

You can also change the station name manually.

1 Press MENU.
2 Press to select "MANUAL CH SET", then press OK or ►.
3 Press ▲▼ ◄► until the item you want begins blinking.
4 Press OK twice. The Manual Channel Set screen appears.
5 **If you want to change the station name to registered one (P.18),** press ► until the station name (ID) begins blinking, then press ▲ or ▼ until the new station name (ID) appears.

If you want to change the station name to other than registered one, press ► until the first letter of the station name (ID) begins blinking, then press ▲ or ▼ to cycle through the characters (A–Z, 0–9, –, ∗, +, _ (space) and stop when the desired character is indicated, then press ► to enter. Enter the remaining characters the same way (maximum of 4).
- If you make a mistake, press ◄ until the incorrect character begins blinking. Then enter the correct character by pressing ▲ or ▼.

6 Press OK. The programmed channel list appears.
7 Press MENU to exit menu operations.

ATTENTION
- If the channel positions are changed or deleted, the Guide Programme numbers that have been set are reset or changed. If an attempt is made at timer programming with VIDEO Plus+ system in this state, the "GUIDE PROG SET" screen appears. Input the channel position on which the broadcast for the PlusCode number is received.
- If the channels are added, set the Guide Programme number for that channel (station). (☞"VIDEO Plus+ Set Up" on page 20)

TV Station And ID List

STATION NAME	ID*
Anglia TV	ANGL
ARD	ARD
ARTE	ARTE
BBC Group	BBC
BBC1	BBC1
BBC2	BBC2
Berlin 1	BLN1
Berlin 2	BLN2
Border TV	BORD
Bayern1	BR1
Bayern3	BR3
BRT1	BRT1
BRT2	BRT2
Children Ch	CHLD
Canal +	CH+
CNN	CNN
Channel TV	CHNL
Central TV	CNTR
Channel 4	CH 4
Channel 5	CH 5
DRS	DRS
DR TV	DRTV
DSF	DSF
Euronews	EURN
Euronews	EURO
Eurosports	EURS
France1	FR1
France2	FR2
France3	FR3
Granada TV	GRNA
Grampian TV	GRMP
Hessen1	HR1
Hessen3	HR3
HRT	HRT
HTV	HTV
ITV Network	ITV
Kabelkanal	KABL
London	LNDN
MDR	MDR
MTV	MTV
Nord3	N3
NDR1	NDR1
NDR3	NDR3
NED1	NED1
NED2	NED2
NED3	NED3
Network 2	NET2
NRK	NRK
N-TV	N-TV
Offener Kanal	OKAN
ORF1	ORF1
ORF2	ORF2
ORF3	ORF3
OWL 3	OWL3
Premiere	PRMI
PR07	PR07
RAI1	RAI1
RAI2	RAI2
RAI3	RAI3
RB1	RB1
RB3	RB3
Rikisutvarpid-S	RKPS
RTBF 1	RTB1
RTBF 2	RTB2
RTE 1	RTE1
RTL	RTL
RTL 2	RTL2
RTP	RTP

STATION NAME	ID*
SAT	SAT
SAT 1	SAT1
Scottish TV	SCOT
SC4	SC4
SDR	SDR
SDR1	SDR1
SFB1	SFB1
SFB3	SFB3
SKY	SKY
Sky One	SKY1
Sky Net	SKYN
Sport	SPRT
SR 1	SR1
Super RTL	SRTL
STV Test	STVT
STV 1	STV1
STV 2	STV2
Suedwest3	SWR
SWF 1	SWF1
Schweiz4	SWZ4
TYNE TEES	TEES
Text	TEXT
TF1	TF1
TNT int	TNT
TRT int	TRT
TSI	TSI
TSR	TSR
TSW	TSW
TVE	TVE
TV Polonia	TVPA
TVP 1	TVP1
TVP 2	TVP2
TVS	TVS
TV2	TV2
TV5	TV5
Tele Zurich	TZUR
Ulster TV	ULST
Veronica	VERN
VIVA	VIVA
VIVA2	VIV2
VOX	VOX
VTM	VTM
VT4	VT4
West1	WDR1
West3	WDR3
YLE 1	YLE1
YLE 2	YLE2
Yorkshire TV	YORK
ZDF	ZDF
Zurich 1	ZUR1
3SAT	3SAT

* The "ID" abbreviation is what is shown on-screen in lieu of the station name. The "ID" abbreviation is listed in the Confirmation screen and is displayed on the TV screen each time the recorder is tuned to a different station.

TV Station Channel Number Guide

For customers in the U.K.

Only the main stations are listed. There are in addition many relay stations, and full lists are available from the BBC and ITV.

	BBC1	BBC2	ITV	CH4	CH5
London & South-East					
Bluebell Hill	40	46	43	65	—
Crystal Palace	26	33	23	30	37
Dover	50	56	66	53	—
Heathfield	49	52	64	67	—
Oxford	57	63	60	53	49
South-West					
Beacon Hill	57	63	60	53	—
Caradon Hill	22	28	25	32	—
Huntshaw Cross	55	62	59	65	67
Redruth	51	44	41	47	37
Stockland Hill	33	26	23	29	—
Channel Islands					
Fremont Point	51	44	41	47	—
South					
Hannington	39	45	42	66	35
Midhurst	61	55	58	68	—
Rowridge	31	24	27	21	—
West					
Mendip	58	64	61	54	37
East					
Sandy Heath	31	27	24	21	39
Sudbury	51	44	41	47	35
Tacolneston	62	55	59	65	52
Midlands					
Ridge Hill	22	28	25	32	35
Sutton Coldfield	46	40	43	50	37
The Wrekin	26	33	23	29	35
Waltham	58	64	61	54	35
North					
Belmont	22	28	25	32	56
Emley Moor	44	51	47	41	37

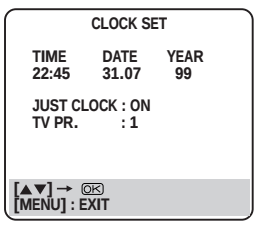
	BBC1	BBC2	ITV	CH4	CH5
North-West					
Caldbeck	30	34	28	32	56
Winter Hill	55	62	59	65	48
North-East					
Bilsdale West Moor	33	26	29	23	35
Chatton	39	45	49	42	—
Pontop Pike	58	64	61	54	68
Scotland					
Angus	57	63	60	53	—
Black Hill	40	46	43	50	37
Sandale	22	—	—	—	—
Caldbeck	—	34	28	32	56
Creigkelly	31	27	24	21	48
Darvel	33	26	23	29	35
Durris	22	28	25	32	67
Eitshal	33	26	23	29	—
Keelylang Hill	40	46	43	50	—
Knock More	33	26	23	29	—
Rosemarkie	39	45	49	42	67
Rumster Forest	31	27	24	21	—
Selkirk	55	62	59	65	52
Wales					
Blaenplwyf	31	27	24	21	56
Carmel	57	63	60	53	—
Llanddona	57	63	60	53	—
Moel-y-Parc	52	45	49	42	—
Presely	46	40	43	50	37
Wenvoe	44	51	41	47	—
Northern Ireland					
Brougher Mountain	22	28	25	32	—
Divis	31	27	24	21	37
Limavady	55	62	59	65	—

Clock Setting

You can also reset or correct the clock manually.

1 Select Clock Set Screen

1 Press MENU.
2 Press ▲ or ▼ to select "INITIAL SET " then press OK or ►.
The Initial Set menu appears.
3 Press ▲ or ▼ to select "CLOCK SET" then press OK or ►. The Clock Set screen appears.



2 Set Clock

1 Press PLAY ▲ or ▼ to set the time, then press OK or ►.
- Each time you press ▲ or ▼, the set time changes by 1-minute intervals. If you hold the button, the set time changes by 30-minute intervals.

2 Press ▲ or ▼ to set the date, then press OK or ►.
- Each time you press ▲ or ▼, the set date changes by 1-day intervals. If you hold the button, the set date changes by 15-day intervals.

3 Press ▲ or ▼ to set the year, then press OK or ►.
- Each time you press ▲ or ▼, the set year changes by 1-year intervals. If you hold the button, the set year changes rapidly.

4 Press ▲ or ▼ to set the JUST CLOCK function, then press OK or ►.

ON: To get accurate time keeping through automatic adjustments at regular intervals, by reading data from PDC signal.

OFF: If the clock setting data from PDC signal is incorrrect, set to "OFF". However, setting to "OFF" reduces the accuracy of the built-in clock, which could adversely affect timer recording.

If you set to "ON" press ▲ or ▼ to set the channel position to the station that transmits the clock setting data, then press OK or ►.

3 Finish Setting

Press MENU to exit. The clock starts to operate.

Notes:
- *Just Clock (when set to "ON") adjusts the VCR's built-in clock every hour, except for 23:00, 0:00, 1:00 and 2:00.*
- *Just Clock is not effective when . . .*
  - *– the VCR's power is "ON".*
  - *– the VCR is in the Timer mode.*
  - *– a difference of more than 3 minutes exists between the built-in clock's time and the actual time.*
  - *– the VCR is in the Auto Satellite Prog Rec mode (☞P.28).*
  - *– the VCR is in the Power Save mode (☞P.15).*
- *If Just Clock is set to "ON", the VCR's clock is automatically adjusted at the start/end of Summer Time.*
- *Just Clock may not function properly depending on the reception condition.*
- *If a power failure occurs, the clock will lose its setting.*

VIDEO Plus+® System Set Up

To ensure that VIDEO Plus+ Timer Recording operates correctly, it is necessary to set the "Guide Programme (GUIDE PROG)" number for each station.

"Guide Programme (GUIDE PROG) number" refers to the assigned TV station numbers, according to broadcast area, for VIDEO Plus+ timer recording. The Guide Programme numbers can be found in most TV listings.

IMPORTANT
Normally, Auto Set Up (☞P. 11), Preset Download (☞P. 13) or Auto Channel Set (☞P. 15) sets the Guide Programme Numbers automatically. You need to set the Guide Programme Numbers manually only in the following cases.

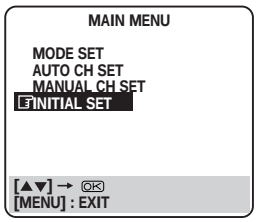
a) When timer-programming with VIDEO Plus+ system, the channel position, where the station you wish to record is received on your VCR, is not selected or when you add a channel after Auto Set Up, Preset Download or Auto Channel Set has taken place. In this case, set the Guide Programme Number for that station manually.

b) When you delete a channel or change channel positions manually after Auto Set Up, Preset Download or Auto Channel Set has taken place. In this case, set the Guide Programme Numbers for all the receivable stations manually.

c) When you wish to timer-record a satellite programme with VIDEO Plus+ system. In this case, set the Guide Programme Numbers for all satellite broadcasts received on your satellite tuner.

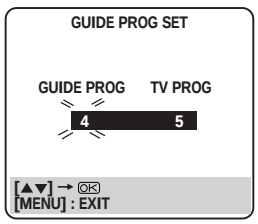
1 Select Initial Set Screen

1 Press MENU.
2 Press ▲ or ▼ to select "INITIAL SET" then press OK or ►.



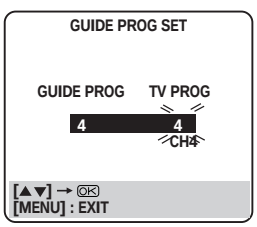
2 Set Guide Programme Number

1 Press ▲ or ▼ to select "GUIDE PROG SET" then press OK or ►.



(ex.) When inputting the Guide Programme number 4 for CH4.

2 Press ▲ or ▼ or Number buttons to enter guide programme number (GUIDE PROG) then press OK or ►.
3 Press ▲ or ▼ or Number buttons to enter the number of the recorder's channel position on which the Guide Programme number's broadcast is received, then press OK or ►.



(ex.) If CH4 is received on channel position 4.

4 Repeat the above procedures until you set the guide programme number for all the receivable stations.
- If the satellite broadcast is received on your VCR's auxiliary channel "L-2", select "L-2" for the channel position.

3 Finish Setting

Press MENU.

Playback

Make sure....
- Your VCR, TV, and antenna are connected correctly.

1 On TV

1 Turn on the TV.
2 Select the video channel (or external video input).

2 On VCR

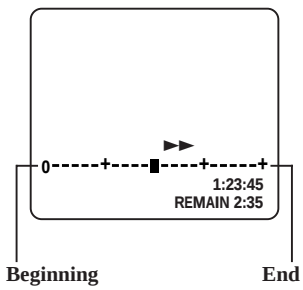
Insert a cassette.
The VCR turns on automatically and the counter is reset to 0:00:00.
- If the record tab on a cassette is removed, playback will start automatically.
- If a cassette is already in the VCR, turn on the VCR.

3 Start Playback

Press PLAY ►. The counter is reset to 0:00:00.
"DSPC" appears blinking in the recorder's display panel during automatic tracking. (☞P.24)
- Playback picture quality of LP recordings will not be as high as SP recordings.
- Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.
- This VCR can play both VHS and Super VHS signals using Super VHS cassettes.

Tape Position Indicator

The tape position indicator appears on screen when, from the Stop mode, you press ◁◄, ►▷ or perform an Index Search. The position of "■" in relation to "0" (beginning) or "+" (end) shows you where you are on the tape.
"O.S.D." (P.26) must be set to "ON", or the indicator will not appear.



Note:
Depending on the type of tape used, there may be times when the indication is not correct.

To rapidly locate a particular scene

Press ►▷ or ◁◄ during playback. (No sound comes out.)
To resume playback, press PLAY ► again.
- If ►▷ or ◁◄ is held down for more than 2 seconds, simply releasing it will cancel the search.

To stop playback

Press ■ STOP.

To rewind the tape

Press ◁◄ or turn the shuttle ring on the front panel counterclockwise when the tape is not running.

To fast forward the tape

Press ►▷ or turn the shuttle ring on the front panel clockwise when the tape is not running.

To eject the tape

Press EJECT ⏏ or STOP/EJECT ■/⏏ on the front panel.

To turn off the VCR

Press VCR POWER or STANDBY/ON.

When playing an NTSC tape;
- *Some TVs shrink the picture vertically and place black bars at the top and the bottom of the TV screen.*
- *The time counter and remaining tape length will not be correct.*
- *The picture may roll up and down. This can be corrected using the V-HOLD control found on some TVs. (This cannot be corrected if the TV does not have a V-HOLD control).*

Recording

When using this VCR, an index mark is always marked at the beginning of every recording. These index marks make it easier for you to search for the beginning of the recordings (see "Index Search"). (☞P.23)

Make sure....
- The record tab on the cassette is not removed.
- Your VCR, TV, and antenna are connected correctly.

1 On TV

1 Turn on the TV.
2 Select the video channel (or external video input).

2 On VCR

Insert a cassette with the record tab in place.
The VCR turns on.
- If a cassette is already in the VCR, turn on the VCR.

To rewind the tape, press ◁◄ or turn the shuttle ring on the front panel counterclockwise.

3 Select Tape Speed

Press SPEED until the desired tape speed (SP, LP) appears on the display.

4 Select a Channel

Press PROG. +/– (or PROGRAMME +/– on the front panel) or Number buttons to select the channel position to record.
If you use a satellite tuner, select the external line input which is connected to a satellite tuner.
"L-1" for AV1 IN/OUT connector.
"L-2" for AV2 IN/DECODER connector.

5 Start Recording

Press RECORD ●.
"DSPC" takes place at the beginning of both the first SP and the first LP recording after inserting the cassette. (☞P.24)
- If "DIRECT RECORD" is set to "ON" (☞P.28), the programme that appears on the TV screen will be recorded.
- Picture quality of LP recordings will not be high as on SP recordings.
- This VCR can record on regular VHS and Super VHS cassettes. By using Super VHS cassettes, you can record both VHS and Super VHS signals. For more details, see "Selecting Recording Format". (☞P.27)

To pause recording

Press PAUSE/STILL ❚❚.
To resume recording, press PLAY ► button.
- During the Record Pause mode, you can change the channel position by pressing the PROG. +/– (or PROGRAMME +/– or Number buttons).

To stop recording

Press ■ STOP.

To watch another TV programme while recording

1. If your VCR is connected to the TV using Scart cable, press VCR/TV so that the VCR indicator goes off from the display.
2. Select a different channel you want to watch on the TV.
You can watch the programme of the selected channel on the TV, without affecting recording on the VCR.
- If you use a satellite tuner, you cannot watch another programme while recording.

To display the recording time indication

Press DISPLAY until a counter reading appears on the display window.

To display the tape remaining time

Press DISPLAY until tape remaining time is displayed. The display panel shows the tape remaining time with "◣" displayed.
- By pressing the DISPLAY button, you can change the display to show the counter reading, channel position*, clock time or tape remaining time.
**Channel position is not displayed during playback.*

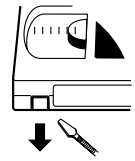
To reset counter

Press CLEAR on the remote control while the counter reading appears on the display.

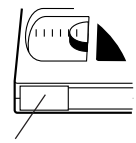
Erase protection

Cassettes have the record tab to ensure that recordings are not accidentally erased.

To prevent accidental erasure:
Break off the record tab with a screwdriver.



To record again:
Cover the opening with adhesive tape.



Adhesive tape

Automatic Operations

Auto playback

When a tape is inserted, the VCR turns on. If the record tab is removed, playback begins.

Auto rewind

When a tape reaches its end during playback, fast forwarding or manual recording, the VCR rewinds the tape and stops.

Repeat playback

When you press and hold PLAY ► for more than 5 seconds, you can playback the same tape repeatedly (50 times).
Press STOP ■ at any time to stop playback.
When the tape runs to its end, the VCR automatically rewinds the tape, and starts playback.

Memory rewind power off

When you press VCR POWER within 2 seconds after rewinding starts, the VCR turns off after rewinding is completed.

Eject cassette

You can eject the tape simply by pressing EJECT ▲ even while the VCR is turned off.
When you press EJECT ▲, the VCR automatically turns on, ejects the tape, then turns off.

Special Effect Playbacks

Are you familiar with tape playback? If so, you are ready to enjoy the special effect playback features described below.

To view a still picture

Press PAUSE/STILL ⏸ briefly during playback.
Playback is freezed and a still picture appears.

Press the button again to activate frame-by-frame playback (or press ⏮ ⏭ button.

To resume playback, press PLAY ▶.

To advance a still picture:

1 Press JOG/SHTL so that the JOG/SHTL button lights up.
2 Rotate the jog dial clockwise (or counterclockwise) to advance (or reverse) a still picture frame by frame, while the JOG/SHTL button lights up.

To resume playback, press PLAY ▶.

To view a slow motion picture

Press PAUSE/STILL ⏸ for more than 2 seconds during playback.

To decrease the slow motion speed (and reverse the slow motion playback), turn the shuttle ring counter clockwise.

To increase the slow motion speed (and forward the slow motion playback), turn the shuttle ring clock wise.

To resume playback, press PLAY ▶.

To rapidly locate, then freeze, a particular scene

During tape playback or Still mode, follow these steps.

1 Press JOG/SHTL so that the JOG/SHTL button lights.
2 Turn and hold the Shuttle ring clockwise (or counterclockwise) to fast forward (or reverse) a picture. As you turn the ring further, the search speed increases. You may only use the Shuttle ring when the JOG/SHTL button is lit.
3 Release the Shuttle ring freezes the picture in still mode.

Notes:

- *No sound comes out during special effect playbacks.*
- *If you keep viewing slow motion and still pictures for 5 minutes, the VCR automatically stops to protect the tape and video heads.*
- *During search, still, or frame-by frame playback, the picture will be distorted, and there may be a loss of colour.*
- *During special effect playbacks, some noise bars will appear on the TV screen.*
- *When normal playback resumes from search, still, slow motion or frame-by-frame playback, the picture may jitter vertically momentarily depending on the type of TV being used.*
- *When using the jog dial or shuttle ring on the front panel, you do not have to press JOG/SHTL on the remote control.*

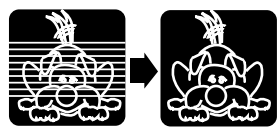
Tracking Adjustments

Auto tracking

Each time a tape is inserted, auto tracking starts working and continuously analyses the signal to adjust for optimum picture quality during playback. So, there is no need for you to minimize noises in most tapes during playback.

Manual tracking

- **During normal playback:**
  If auto tracking cannot eliminate noises well during playback, press SPEED on the remote control to engage manual tracking mode, then press PROGRAMME (or PROG.) + or –.
- **During a slow motion picture:**
  Press PROGRAMME +/– on the front panel or PROG. +/– on the remote control to minimize noises in the slow motion picture.



To cancel manual tracking, stop the tape, eject the tape, then re-insert it or press SPEED during playback.

Index Search

You can locate an index marked at the beginning of each recording on a tape recorded on this VCR (or an indexed tape).

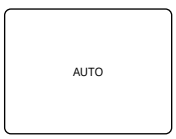
Press ⏭ or ⏮ repeatedly until the appropriate number is displayed on the TV screen before starting play.
Rapid forward or reverse search begins. When it finds the designated index, playback starts automatically.

- Locate an index number by pressing the button repeatedly, indicating how many index marks ahead of or behind that recording you want is from the tape's current position.
- Up to ±9th index mark from the current position on the tape can be located.

SmartPicture

You can make the picture softer or sharper or distinct the picture when playing the tape.
SmartPicture is set to AUTO when you receive the VCR.

1 Select SmartPicture Mode



1 Press the SMARTPICTURE button. The current setting will appear on the screen for about 5 seconds.
2 While the current setting appears, press the SMARTPICTURE button repeatedly, the setting changes as follows.

AUTO:
Normally select this mode.

DISTINCT:
Select this mode when you want the distinct picture. The picture detail is emphasized.

SOFT:
Select this mode when you want the soft picture. The signal noise of the picture is softened.

SHARP:
Select this mode when you want the sharp picture. The picture edge is emphasized.

Notes:
- *It is recommended that the SmartPicture is set to "SOFT" if playback picture is noisy.*
- *When "DSPC" is set to "OFF", "AUTO" is switched to "NATURAL" automatically.*

DSPC

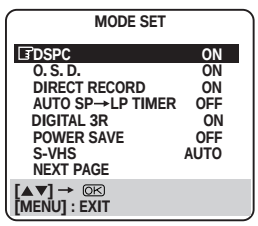
The DSPC (Digital Studio Picture Control) system checks the condition of the tape in use during recording and playback, and compensates to provide the highest possible recording and playback pictures. The default setting for both recording and playback is "ON".

1 Select Mode Set Screen

1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET" then press OK or ►.

2 Set DSPC Mode

Press ▲ or ▼ to select "DSPC", then press OK or ► to set to "ON" or "OFF".



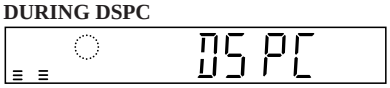
3 Finish Setting

Press MENU.
Once the "DSPC" mode is set to "ON", the DSPC system works for both recording & playback, as described below;

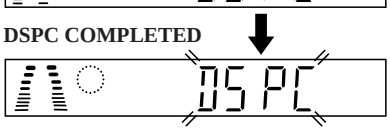
For Recording

Press RECORD ●.

DURING DSPC



DSPC COMPLETED



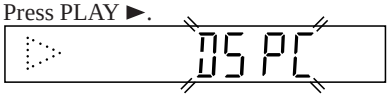
- The VCR spends approximately 7 seconds assessing the condition of the tape, then begins recording.

Notes:
- *The DSPC system works for both SP and LP modes only after a tape has been inserted and the Record mode is first initiated. It does not work during recording.*
- *The DSPC system does not work while Auto Satellite Prog recording is in progress (☞ P. 28).*
- *In the case of timer recording, the DSPC system works before recording is initiated.*
- *Once the cassette is ejected, the DSPC data is cancelled. The next time the cassette is used for recording, DSPC is re-performed.*
- *When "DSPC" is displayed, the VCR does not start One Touch Recording (☞P. 26).*
- Since the DSPC system works before recording actually starts, there is a delay of approximately 7 seconds after RECORD ● is pressed. To make sure you record the desired scene or programme in its entirety, first perform the following steps:
  1) Press and hold PAUSE/STILL ❚❚ and press RECORD ● to engage the RECORD PAUSE mode.
  - *The VCR then automatically checks the condition of the tape and, after approximately 7 seconds, re-enters RECORD PAUSE.*

  2) Press PLAY ► to start recording.
  - *If you want to bypass the DSPC system and begin recording immediately, set "DSPC" to "OFF".*

For Playback

Press PLAY ►.



- The VCR adjusts the playback picture quality based on the quality of the tape in use.
- DSPC is active during Auto Tracking. "DSPC" appears blinking on the front panel's display window.

Notes:
- *When watching a tape recorded with "DSPC" set to "ON", it is recommended that you leave DSPC to "ON" during playback as well.*
- *"DSPC" only appears at the beginning of automatic tracking. Even though it doesn't appear after that, the DSPC function is operative.*

Digital TBC/NR

Your VCR is equipped with the Digital TBC (Time Base Corrector) that removes jitter from fluctuating video signals to deliver a stable picture even with old tapes and rental cassettes. The on/off of Digital 3-DNR (Noise Reduction) which cuts noise and enables clear picture reproduction is also linked to this function.

*The default setting is “ON”.

We recommend that you use the Digital TBC feature when...

... playing a tape recorded on a camcorder.
... playing a tape repeatedly.
... using this VCR as the player for tape duplication.

1 Set Digital TBC/NR Mode

Press DIGITAL TBC/NR on the front panel so that the button lights up.

- Pressing the button again turns off this function. The lights goes off.
- If you playback a tape recorded under poor TV reception condition, there may be cases where the picture becomes more stable with Digital TBC/NR set to off.

Digital 3R

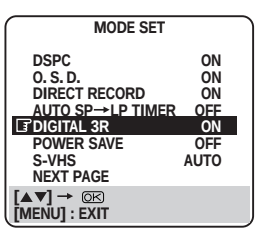
Digital 3R picture system applies edge correction to the luminance signal to enhance detail.

1 Select Mode Set Screen

1 Press MENU.
2 Press ▲ or ▼ to select “MODE SET” then press OK or ►.

2 Set Digital 3R Mode

1 Press ▲ or ▼ to select “DIGITAL 3R”.
2 Press OK or ► to select one of the following:



ON: Normally select this mode.
OFF: No picture adjustment will be done.

- It is recommended to keep “DIGITAL 3R” set to “ON”.
- Depending on the type of tape being used, picture quality may be better with “DIGITAL 3R” set to “OFF”.

3 Finish Setting

Press MENU.

Receiving/Recording NICAM Stereo And Bilingual Programmes

This VCR can receive and record stereo and bilingual programmes, including the NICAM (Digital Stereo Sound) broadcasts.

When the recorder is tuned to a different station, the type of broadcast being received will be displayed on the TV screen for a few seconds.

Type of Broadcast Being Received	On-screen Display
Regular Monaural	(none)
NICAM Stereo	ST NICAM
NICAM Bilingual	BIL NICAM
NICAM Monaural	NICAM

Notes:

- *The NICAM audio programme will be recorded on the Hi-Fi audio track, and the Standard audio programme on the normal audio track.*
- *If the quality of stereo sound being received is poor, the broadcast will be received in monaural with better quality.*
- *Before playing back a programme recorded in stereo, or a bilingual programme, refer to “Selecting Monitor Sound”.*
- *“O.S.D.” must be set to “ON” or the on-screen displays will not appear.*

Selecting Monitor Sound

This VCR is capable of recording three soundtracks (Hi-Fi L, Hi-Fi R, and normal) and will play back the one you select. Also, this VCR can receive and record stereo and bilingual programmes and you can select the sound that you want to listen to.

1 Select Monitor Sound

Press AUDIO. Each time you pressed the button, the output sound changes as follows.

HIFI L R (On-screen display)
+ (Display window)
For Hi-Fi stereo tapes

OR

For stereo programme
HIFI L (On-screen display)
(Display window)
For main audio of bilingual tapes

OR

For main audio of bilingual programme
HIFI R (On-screen display)
(Display window)
For sub audio of bilingual tapes

OR

For sub audio of bilingual programme
NORM (On-screen display & Display window)
For audio - dubbed tapes
For standard (regular monaural) audio of NICAM broadcast

HIFI + NORM (On-screen display)
+ + NORM (Display window)
For audio - dubbed tapes

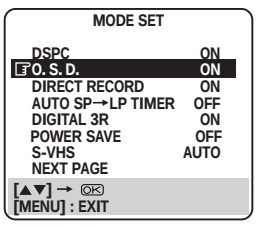
Notes:
“HIFI L R” (+) should normally be selected during playback. In this mode, Hi-Fi stereo tapes are played back in stereo, and the normal audio track is played back automatically for tapes with only normal audio.

Using On-Screen Display

You can display the VCR operating status on the TV screen.
For the information about what you can see on the TV screen, see page 5.

1 Select MODE SET Screen

1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET" then press OK or ►.
The Mode Set menu appears.



2 Set OSD

1 Press ▲ or ▼ to select "O.S.D."
2 Press OK or ►.
Each time you press the button, the setting changes as follows:

ON:
The VCR operating status appears on screen (The default setting is "ON").
OFF:
The VCR operating status does not appear on screen.

3 Finish Setting

Press MENU.

Notes:
- *When you use this VCR as the player for tape duplication, be sure to set "O.S.D." to "OFF" before starting.*
- *During playback, the operation mode indicators may be disturbed depending on the type of tape being used.*

One Touch Recording (OTR)

The OTR function lets you quickly specify how long you want a recording to continue. You do not have to programme the timer.

Make sure....
- The record tab on the cassette is not removed.
- Your VCR, TV and antenna are connected correctly.

1 On TV

1 Turn on the TV.
2 Select the video channel (or video input).

2 On VCR

Insert a cassette with the record tab in place.
The VCR turns on.
- If a cassette is already in the VCR, turn on the VCR.

3 Select Channel

Press PROG. (or PROGRAMME) +/– or Number buttons to select the channel to record.

4 Start OTR

Press RECORD ● twice.
Recording starts immediately, and the ◌ (Record) indicator lights up and blinks on the display.

5 Select Recording Length

Press RECORD ● repeatedly until the desired recording length appears.
Each time you press the button, the recording length increases in 30-minute intervals.

0:30→1:00→1:30·····5:30→6:00
REC (Normal recording)←

To change the recording length during an OTR

Press RECORD until the desired length appears.

To cancel an OTR

Press STOP ■ to stop recording before the preset recording length is reached.
If you want to cancel the OTR mode but continue recording, press RECORD ● several times until ◌ (Record) indicator stops blinking.

Notes on the indications on the display while an OTR operation
- *During recording, the displayed time counts down. When "0:00" is reached, recording stops and the VCR turns off automatically.*
- *If an OTR is engaged during pause, the displayed time counts down normally, but recording does not begin until you cancel the pause.*

Selecting Recording Format

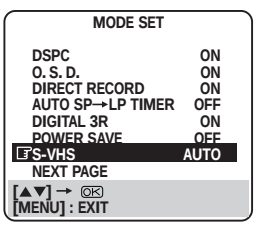
When shipped from the factory, this VCR has been set to select automatically S-VHS format for recording on an S-VHS tape and VHS format for recording on a VHS tape. If you want to make a recording using VHS format on an S-VHS tape, follow the procedure below.

1 Select Mode Set Screen

1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET" then press OK or ►.
The Mode Set menu appears.

2 Select Recording Format

1 Press ▲ or ▼ to select "S-VHS".
2 Press OK or ►.
Each time you press the button, the setting changes.



AUTO:
Normally select this.

OFF:
Select this when you want to make a recording using the VHS format on an S-VHS tape.

3 Finish Setting

Press MENU.

Notes:

- *When playing a tape that has been recorded in S-VHS, the S-VHS indicator lights on the display panel regardless of the "S-VHS" mode setting.*

Selecting AV1 and AV2 Input signal

This VCR has two AV input terminals on the rear panel. You have to correctly set the input signal depending on the type of unit connected to these terminals.

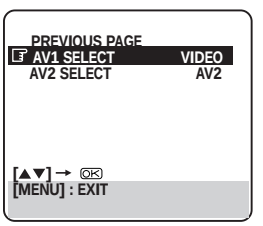
1 Select Mode Set Screen

1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET" then press OK or ►.
The Mode Set menu appears.

2 Select AV1, AV2

If you are connected to the AV1 IN/ OUT connector:

1 Press ▲ or ▼ to select "AV1 SELECT".



2 Press OK or ► to select one of the following:

VIDEO : If a connected device's output is compatible only with regular video signals.
S-VIDEO : If a connected device's output is compatible with Y/C signals. This setting will let you take advantage of higher quality S-VHS pictures.

- If "AV2 SELECT" is set to "DECODER", it is impossible to set "AV1 SELECT" to "S-VIDEO".

3 Press MENU to return to normal screen.

If you are connected to the AV2 IN/ DECODER connector.

1 Press ▲ or ▼ to select "AV2 SELECT".
2 Press OK or ► to select one of the following:

AV2 : To use this recorder as the recording deck, where the player is connected to the AV2 IN/DECODER connector, or to use the satellite tuner connected to the AV2 IN/DECODER connector.
DECODER : To use a decoder connected to the AV2 IN/DECODER connector.
SAT : To view a satellite programme with the TV set while the recorder is in Timer mode, in Stop mode, recording or turned off. (☞P. 34)

- If the AV1 OUT switch on the rear panel is set to Y/C, it is impossible to set "AV2 SELECT" to "DECODER".

3 Press MENU to return to normal screen.

- *If you are not connecting a decoder or satellite tuner to the AV2 IN/DECODER connector, leave "AV2 SELECT" set to "AV2".*
- *The default setting is "AV2"; if the VCR's memory backup has expired due to a power cut or because the AC was removed from the VCR, "AV2" will be automatically selected when the power is restored to the VCR. If you are using a decoder, be sure to set "AV2 SELECT" back to "DECODER".*

Automatic Satellite Programme Recording

This facility allows you to record automatically a satellite programme which is timer-programmed on your external satellite tuner. Connect a satellite tuner to the VCR's AV2 IN/ DECODER connector (☞P.34) and programme the timer on the satellite tuner; the VCR starts recording when it signals input from the satellite tuner to the AV2 IN/DECODER connector, and when there is no input signal the VCR stops recording and the power shuts off.

Before performing the following steps:
- *Make sure the satellite tuner is connected to the VCR's AV2 IN/ DECODER connector. (P.34)*
- *Programme the timer on the satellite tuner.*
- *Insert a cassette with the safety tab in place.*

1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET" then press OK or ►.
3 Press ▲ or ▼ to select "AV2 SELECT".
4 Press OK or ► to set to "SAT".
5 Press SPEED button to set the tape speed.
6 Press and hold REC LINK on the front panel for about 2 seconds so that the button lights.
The recorder turns off automatically.
To disengage the Auto Satellite Prog Rec mode press REC LINK again. The button light goes off.

Notes:
- Be sure not to turn on the satellite tuner before the programme is executed; otherwise, the VCR will start recording when the satellite tuner's power is turned on.
- Auto Satellite Prog recording and timer recording cannot be done at the same time.
- Auto Satellite Prog recording is not possible if your satellite tuner does not have a timer.
- The REC LINK button blinks while Auto Satellite Prog recording is in progress.
- Pressing theVCR's STANDBY/ON button while Auto Satellite Prog recording is in progress turns off the VCR's power and disengage the Auto Satellite Prog Rec mode.
- If there are more than one satellite programme you wish to record with Auto Satellite Prog Recording, it is not possible to set the different tape speed per each; the tape speed selected in step 5 will be applicable to all programmes for Auto Satellite Prog recording.
- Depending on the type of satellite tuner, the VCR may not record a slight portion of the beginning of the programme or may record slightly longer than the actual length of the programme.
- If you engage the Auto Satellite Prog Recording mode when the satellite tuner's power is on, the VCR will not start Auto Satellite Prog recording even though the REC LINK button blinks. When the satellite tuner shuts off once and is turned back on again, the VCR starts recording.
- When the Auto Satellite Prog Rec mode is engaged or the VCR's power is turned off after Auto Satellite Prog recording is finished, the VCR will not enter the Timer mode.
- When you press and hold the VCR's REC LINK button to engage the Auto Satellite Prog Rec mode, if the REC LINK button does not light but instead blinks quickly even though your satellite tuner's power is off, Auto Satellite Prog Recording will not work properly with that satellite tuner. If this is the case, perform "Timer Recording" (☞P.30) to timer-record a satellite programme.
  - Some satellite tuners output signals even if the power is off. Auto Satellite Prog Recording is not possible with those satellite tuners.

EasyLink Functions

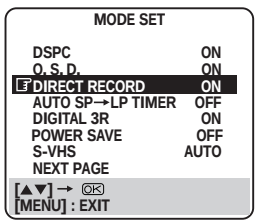
When you connect the VCR and TV equipped with T-V Link, EasyLink, MegaLogic, SMARTLINK, Q-Link, DATA LOGIC, or NEXTVIEWLINK via fully-wired 21-pin SCART cable (☞P.9), the following functions are available.
- Direct Recording
- NextView Link
- TV Auto Power ON
- VCR Auto Standby

For details, refer to the instructions manual for your TV.
The degree of compatibility and available functions may differ by system.

Direct Recording

You can start recording the programme that you are watching on your TV with simple operation. Follow the procedure below to use this function.

1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET" then press OK or ►.
3 Press ▲ or ▼ to select "DIRECT RECORD" then press OK or ► to set to "ON".



4 Press MENU to exit the menu operation.
5 Press RECORD ●. The VCR will record the programme you currently watch.
  - If "DIRECT RECORD" is set to "OFF", the RECORD ● button functions as described in "Recording". (☞P.22)
  - During the Direct Recording "CH_ _" appears on the display panel.

NexTView Link

You can download the EPG (Electronic Programme Guide) information from your TV for timer-programming on the VCR.
VCR must be switched on during EPG download.
For details, refer to the instruction manual for your TV.

TV Auto Power ON

You can turn on the TV and set it to video mode automatically whenever you play a tape.
For details, refer to the instruction manual for your TV.

VCR Auto Standby

You can use your TV's remote control to turn off the VCR. For details, refer to the instruction manual for your TV.

Timer Recording Using the VIDEO Plus+ System

You can simplify the programming method of timer recording by using the VIDEO Plus+ system. Whenever you want to record a TV program, all you need to do is to find out the programme's VIDEO Plus+ number.
You can easily find out this number by checking the TV programme list of your local newspaper or TV guide magazine.
Simply entering the programme's VIDEO Plus+ using the remote control will make the VCR programme a timer recording.

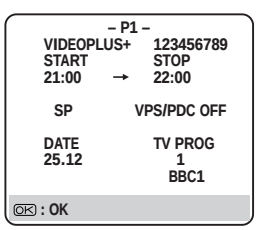
Make sure....
- The clock is set to the correct time before setting timer recording.
- A cassette is inserted in the VCR and the record tab of the cassette must not be removed.

1 Select VIDEO Plus+ Mode

1 Press TIMER.
2 Press ▲ or ▼ to select "VIDEO PLUS+" then press OK or ►. The VIDEO Plus+ entry menu appears on the TV screen.

2 Enter PlusCode Number

1 Press Number buttons to enter the PlusCode number assigned to the TV programme you want to record.
2 Press OK or ►. The VIDEO Plus+ Programme screen appears.



- If "ERROR" appears on the TV, you have entered an incorrect PlusCode number. If this happens, press CLEAR to erase the number, then enter the correct number.
- If the guide programme number has not yet been set, the GUIDE PROG SET screen will appear.
  Input the number of the channel position on which the broadcast for the PlusCode number is received on the VCR, then press OK or ► and the VIDEO Plus+ programme screen appears.

3 Select Tape Speed

Press SPEED.
- Each time you press the button, the tape speed alternates between "SP", or "LP".
- To change the stop time, press STOP +/– (number 2 or 5 button).

4 Set PDC Mode

Press VPS/PDC (Number button 7) to select "VPS/PDC ON" or "VPS/PDC OFF".
(☞ "PDC Recording" on page 31)

5 Finish Settings

Press MENU or OK.
"PROGRAM COMPLETED" appears on the TV screen.
After 5 seconds, the above message disappears, and the normal TV picture resumes.
- If "PROGRAM NOT COMPLETED" appears, try again from step 1.

If you want to store other programmes, repeat steps 1 to 5.

6 Engage Timer Standby Mode

Press VCR POWER to turn off the VCR.
The ◴ (timer) indicator lights up on the display.
The VCR must be turned off for a timer recording to take place. If you forget to turn off the VCR, "WARNING-TIMER RECORDING TO START SOON" appears on your TV screen five minutes before a timer recording starts. To remove the message, press the CLEAR button.

If you want to record the same programme daily, press DAILY (Number button 8) in step 3. (Press the button again to cancel).
The VCR will record a TV programme every day (Monday through Friday) at the same time and length. (Daily Recording).

If you want to record the same programme weekly, press WEEKLY (Number button 9) in step 3. (Press the button again to cancel).
The VCR will record a TV programme once a week at the same day, time, and length. (Weekly Recording)
If you want to cancel the currently set programme, press CLEAR.

After a timer recording has taken place

Press VCR POWER to turn on the VCR. You can operate your VCR normally.

To stop a started timer recording

Press STANDBY/ON.
Recording stops and the VCR turns off. If it is a Daily or Weekly Recording, future recordings will be carried out as programmed.

To check or erase the programmes, see page 31.

To timer-record a satellite broadcast using the VIDEO Plus+ system:
1 Perform steps 1-6.
2 Set the satellite tuner to the appropriate channel before the selected programme begins.
  Leave the satellite tuner's power on.

Timer Recording

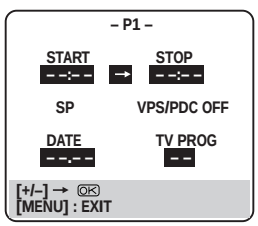
To record while you're away, follow step 1 — 9 below. For each programme you set, the VCR will turn on, start recording, and turn off automatically. You can store up to 8 programmes.

Make sure....
- The clock is set to the correct time before setting timer recording.
- A cassette is inserted in the VCR and the record tab of the cassette must not be removed.

1 Select Timer Mode

1 Press TIMER. The Timer Recording menu appears.

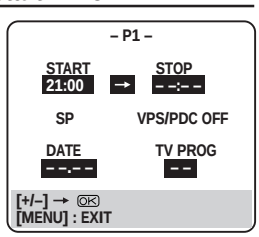
2 Press ▲ or ▼ to select "QUICK PROGRAMMING" then press OK or ►.
The Quick Programming menu appears.



- If you are just starting out, "P1" appears.
- If you have already made 8 programmings, "PROGRAM FULL" appears and goes back to the Timer Recording menu. If this happens, delete unwanted programmes. (☞P.31)

2 Select Start Time

Press START + or – (Number button 1 or 4).



- Each time you press the button, the set time changes by 1-minute intervals. If you hold the button, the set time changes by 30-minute intervals.

3 Select Stop Time

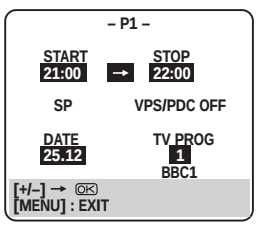
Press STOP + or – (Number button 2 or 5).
- Each time you press the button, the set time changes by 1-minute intervals. If you hold the button, the set time changes by 30-minute intervals.

4 Select Start Date

Press DATE + or – (Number button 3 or 6).

5 Select Channel Position

Press PROG. + or – to enter the TV PROG channel position.
- To record from external line input, press PROG. + or – until "L-1" for AV1 IN/OUT connector, "L-2" for AV2 IN/DECODER connector, "S-1" for S-Video/Audio input jacks or "F-1" for Video/Audio input jacks.



6 Select Tape Speed

Press SPEED.
- Each time you press the button, the tape speed alternates between "SP" and "LP."

7 Set PDC Mode

Press VPS/PDC (Number button 7) to select "VPS/PDC ON" or "VPS/PDC OFF". (☞"PDC Recording" on page 31.)

8 Finish Settings

Press MENU or OK.
"PROGRAM COMPLETED" appears on the TV screen.
After 5 seconds, the above message disappears, and the normal TV picture resumes.
- If "PROGRAM NOT COMPLETED" appears, try again from step 1.

If you want to store other programmes, repeat steps 1 to 8.

9 Engage Timer Standby Mode

Press VCR POWER to turn off the VCR.
The ◴ (Timer) indicator lights up on the display.
The VCR must be turned off for a timer recording to take place. If you forget to turn off the VCR, "WARNING-TIMER RECORDING TO START SOON" appears on your TV screen five minutes before a timer recording starts. To remove the message, press the CLEAR button.

If you want to record the same programme daily, press DAILY (Number button 8) during steps 2 through 7. (Press the button again to cancel).
The VCR will record a TV programme every day (Monday through Friday) at the same time and length. (Daily Recording).

If you want to record the same programme weekly, press WEEKLY (Number button 9) during steps 2 through 7. (Press the button again to cancel).
The VCR will record a TV programme once a week at the same day, time, and length. (Weekly Recording)

If you want to cancel the currently set programme, press CLEAR.

After a timer recording has taken place

Press VCR POWER to turn on the VCR. You can operate your VCR normally.

To stop a started timer recording

Press VCR POWER or STANDBY/ON.
Recording stops and the VCR turns off. If it is a Daily or Weekly Recording, future recordings will be carried out as programmed.

Useful function for Timer Recording: Auto Tape Speed

With this function activated, the VCR can change the tape speed and record the programme in LP mode if not enough tape remains for recording in SP mode.

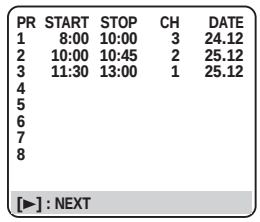
1 Press MENU.
2 Press ▲ or ▼ to select "MODE SET", then press OK or ►.
3 Press ▲ or ▼ to select "AUTO SP → LP TIMER."
4 Press OK or ►.
Each time you press the button, the setting changes.
ON:
Select this to allow the VCR to change the tape speed from SP to LP when there is not enough tape length remaining.
OFF:
Select this not to allow the VCR to change the tape speed.
5 Press MENU to exit from the menu operations.

Notes:

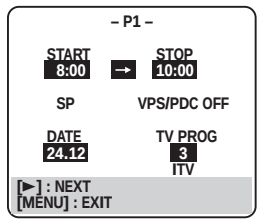
- *The Auto SP-->LP Timer feature is not available during OTR (One Touch Recording) and the feature will not work properly with any tapes longer than E-180 or with some tapes of shorter lengths.*
- *If you have programmed the recorder to timer-record 2 or more programmes, the second programme and those hereafter may not fit on the tape if you set "AUTO SP-->LP TIMER" to "ON". In this case, make sure the mode is not engaged, then set the tape speed manually during timer programming.*
- *In order to ensure that the recording fits on the tape, this feature may leave a short non-recorded section at the end of the tape.*
- *There may be some picture noise and sound disturbance at the point on the tape where the recorder switches from SP to LP mode.*
- *If you perform timer recording with both PDC and the Auto SP-->LP Timer activated, and the programme goes beyond its originally scheduled length, there may be times when the programme cannot be recorded in its entirety.*

To check, edit or erase the programmes

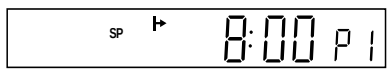
1 Turn on the VCR and TV.
2 Press TIMER.
3 Press ▲ or ▼ to select "PROGRAM REVIEW" then press OK or ►. The list of the timer recording programmes appears.



4 Press OK or ► repeatedly to view the more detailed programme information.



- When you press the button for the first time, the detailed programme information for Programme 1 appears. By pressing this button repeatedly, you can review the detailed information of all other programmes.
- The display panel shows the programme start time. Pressing DISPLAY changes the display to the programme stop time, then the date and the channel position.



6 If you want to change the programme setting shown on the TV screen, press the following buttons:
START +/– : Changes the start time.
STOP +/– : Changes the stop time.
SPEED : Changes the tape speed.
VPS/PDC : Changes the setting of the video programme system.
DATE +/– : Changes the date.
PROG. +/–: Changes the channel.

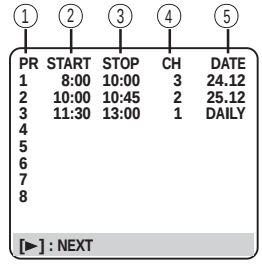
If you want to erase the programme setting shown on the TV screen, press CLEAR. The detailed information of the next programme appears.

7 Press MENU to exit from the menu operations, if necessary.

Notes:

- *You can also check the programmes on the display panel even when the VCR's power is off (unless the VCR is in the Power Save Mode ☞ P.15) or the VCR is in the Timer mode. However, it is not possible to cancel or replace the programmes.*

How to see the programme list



① Programme numbers
② Start time
③ Stop time
④ Channel position numbers
⑤ Start date
- If the programme has worked once for the Daily recording, "DAILY" will be shown instead of the start date.
- If the programme has worked once for the Weekly recording, the following week's date will be shown instead of the start date.

PDC Recording

Now available from some TV stations, PDC (Programme Delivery Control) is a service designed to assure safe, accurate timer recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over the advertised times which you may have preset into the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end – even if the broadcast time of a preset TV programme is changed. PDC is currently available nationally on BBC1, BBC2, Ch. 4 and Ch. 5, except from a few small relay transmitters. Ch. 3 operates a PDC service only in a very few areas. All channels intend to offer this service in due course. Check your TV programme listing guide for latest information. If the channel you intend to record does not offer a PDC service, your VCR will not start recording if PDC has been selected. Be sure to set PDC to "OFF" if PDC is not available on your selected channel.

NOTES:

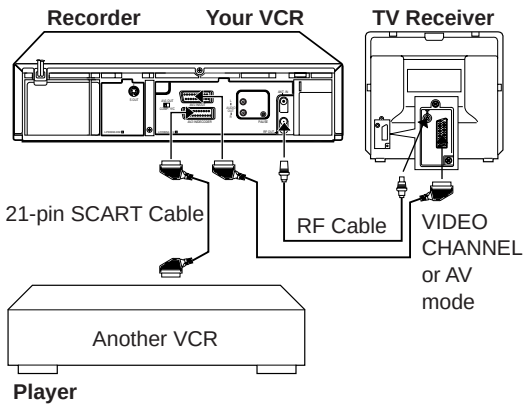
- *When you use Timer Programming, set the start time (PDC time) exactly as advertised in the TV listing. A different time than advertised will result in no recording.*
- *PDC recording is also possible when a satellite tuner or a cable system is connected to AV2 IN/DECODER on your recorder.*
- *PDC recording is also possible via the AV1 IN/OUT connector.*

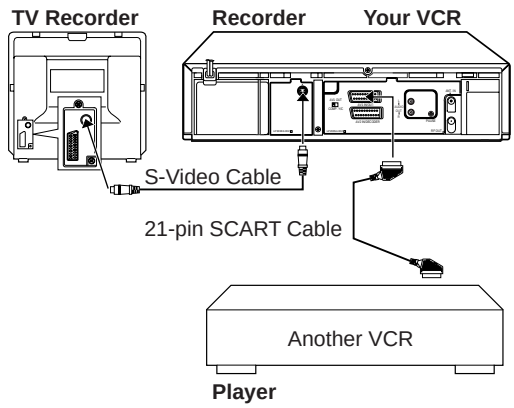
PDC signal is automatically detected if the VCR receives PDC signal.

Tape Duplication

Connection Diagram

1 Connect the recording VCR (this VCR) and the playing VCR.
2 Connect the recording VCR (this VCR) to the TV.





Dubbing from any VCR (or video camera) to another is simple. Explanations on this page uses this VCR as the recording VCR.
Refer also to the manual supplied with the other VCR (for playback).

Note:
When this VCR is using the recording VCR,
You can also use S-Video or Video/Audio input jacks on the front panel if another VCR has S-Video or Video/Audio output jacks.
When this VCR is using the playing VCR,
You can use the following connector or jacks.

- AV1 IN/OUT connector (Rear panel): if another VCR has Scart input connector.
  Be sure to set the AV1 OUT switch to appropriate position. (☞P.9)
- S-Video/Audio output jacks (Rear panel): if another VCR has S-Video/Audio input jacks.

1 At VCRs

Insert a source tape in the playing VCR and a blank tape in the recording VCR.

2 At TV

Tune the channel on the TV to your video channel or external line input.

3 Select Line Input

Press Number button “0” and/or PROG. +/– to select the line input.

- L-1: For rear panel AV1 IN/OUT connector.
- L-2: For rear panel AV2 IN/DECODER connector.
- S-1: For front panel S-Video/Audio input jacks.
- F-1: For front panel Video/Audio input jacks.

If you are using a rear panel AV1 IN/OUT or AV2 IN/DECODER connector, be sure to set the “AV1 SELECT” or “AV2 SELECT” on the Mode Set Screen to appropriate mode. (☞P.27)

4 Select Tape Speed

Press SPEED, until the desired tape speed (SP or LP) appears on the display.

5 Play Back Tape

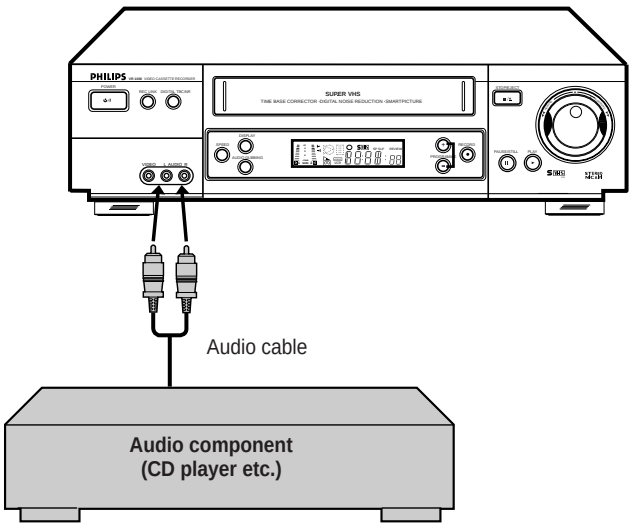
Press the PLAY ► button on the Playing VCR.

6 Record (Copy) Tape

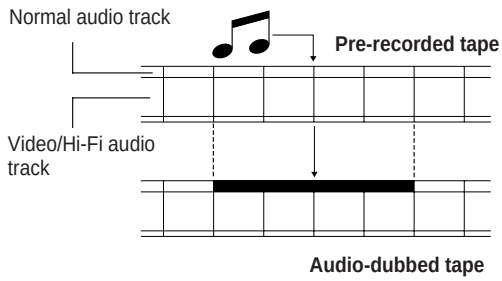
Press RECORD ● at this VCR.

Remember: Press the buttons in step 5 and 6 simultaneously to avoid missing any of the recording.

Audio Dubbing



Audio dubbing replaces the normal audio sound of a previously recorded tape with a new soundtrack. Use your VCR as the recorder.



1 Make Connections

Connect an audio component to the AUDIO IN (L and R) connectors on the VCR's front panel.

- When using monaural equipment, use only VCR's AUDIO IN L connector.

2 Set Input Mode

Press Number button "0" and or PROG. +/– on the remote control to select "F-1" or "S-1" on the display window.

3 Locate Start Point

Press PLAY ► to start playback of the tape in the VCR, and press PAUSE/STILL ❚❚ when you find a point where you want to start dubbing. Press AUDIO DUBBING on the front panel.

- Your VCR enters the Audio Dubbing Pause mode. ○ (REC) blinks, ▷❚❚ (PLAY and PAUSE) lights up on the display window.

4 Start Dubbing

Engage the audio component's PLAY mode, then press PLAY ► to start the tape in your VCR. Audio Dubbing begins at this point.

- To stop dubbing temporarily, press PAUSE/STILL ❚❚. To resume dubbing, press PLAY ►.

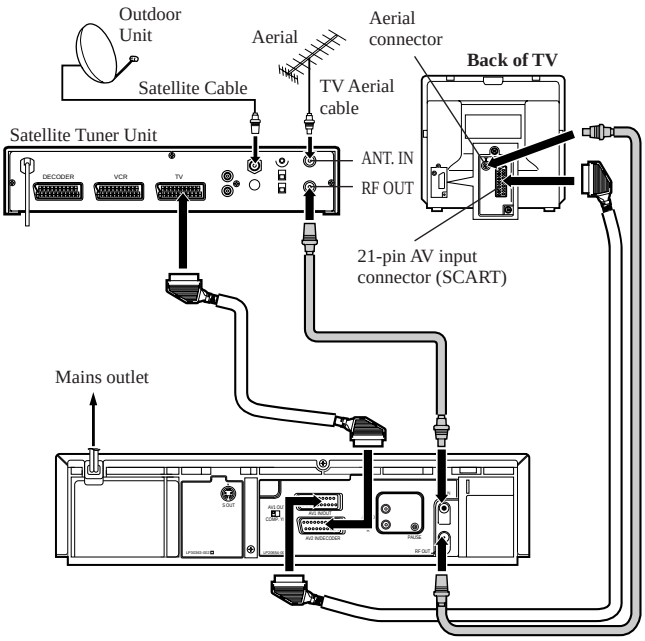
5 End Audio Dubbing

Press STOP ■ to stop the tape in the VCR, and engage the audio component's stop mode.

Note:

- *When monitoring the sound during Audio Dubbing, the normal soundtrack is automatically selected. If you wish to hear the mixed sound (Hi-Fi + Normal soundtracks), press AUDIO on the remote control and select the soundtrack you wish to hear.*
- *Audio dubbing stops automatically when the counter reaches "0:00:00", and the recorder enters the Play mode. Check the counter reading before dubbing.*
- *Audio dubbing is also possible using the rear panel AV1 IN/OUT or AV2 IN/DECODER connector. When using this connector, make sure to select the correct input mode in step **2**.*
- *Audio dubbing cannot be performed on a cassette that has had its record safety tab removed.*
- *When playing back an audio-dubbed tape, press AUDIO on the remote control to select the soundtrack you wish to hear. (☞P.25)*

Connection To a Satellite Tuner (Simple Connections)

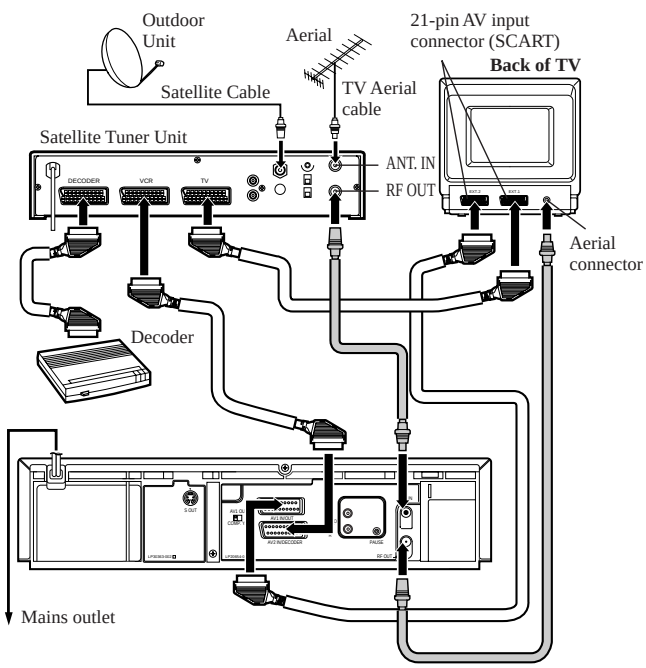


This is an example of simple connection if you don't have a decoder.
Connect the satellite tuner to the VCR's AV2 IN/DECODER connector, then connect the VCR's AV1 IN/OUT connector to the TV's 21-pin SCART connector.

NOTES:
- *Set "AV2 SELECT" to "AV2". (☞P.27)*
- *You can use Automatic Satellite Program Recording function (☞P.28) with this connection.*
- *To record a programme via the satellite tuner, select L-2 mode by pressing Number buttons and/or PROG. +/– so that "L-2" appears on the display window.*
- *For details, refer to the instruction manual for the satellite tuner.*

IMPORTANT
When you set "AV2 SELECT" to "SAT" (☞P.27), it is possible to view a satellite broadcast with the TV set to its AV mode even if the VCR is in Timer mode, in Stop mode, recording or turned off. When the VCR is in Stop mode or recording, press VCR/TV on the remote control to turn off the VCR indicator on the display window. In this case, be sure to set the AV1 OUT switch on the rear panel to COMP.

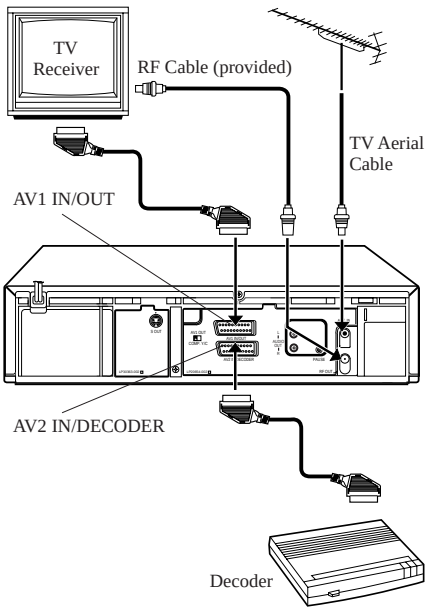
Connection To a Satellite Tuner (Perfect Connections)



This is an example of recommended connection if you have both satellite tuner and decoder.
Connect the decoder to the satellite tuner's connector, AV1 IN/OUT connector to TV's connector, and AV2 IN/DECODER connector to the satellite tuner's connector. Then connect the satellite tuner and TV.

NOTES:
- *Set "AV2 SELECT" to "AV2". (☞P.27)*
- *You can use Automatic Satellite Program Recording function (☞P.28) with this connection.*
- *To record a programme via the satellite, select L-2 mode by pressing Number buttons and/or PROG. +/– so that "L-2" appears on the display window.*
- *To receive a scrambled broadcast, descramble the signal with the satellite tuner.*
- *For details, refer to the instruction manual for the satellite tuner and decoder.*

Connection To a Decoder



The AV2 IN/DECODER connector can be used as an input terminal for an external decoder (descrambler). Simply connect a decoder and you can enjoy the variety of programming that is available through scrambled channels.
Connect your VCR's AV2 IN/DECODER connector to the decoder's Euroconnector using a 21-pin SCART cable.

NOTES:

- *Set "AV2 SELECT" to "DECODER". (☞P.27)*
- *Perform the procedure as described in, "if you want to descramble programme when receiving a scrambled broadcasts" on page 17.*

OPERATING TV

You can use this remote control to operate your TV. To use this remote control for operating the TV, you first need to set the manufacturer's code properly.
You first need to set the manufacturer's code.

For operating TV

Note:
Though this remote control can operate most of the PHILIPS TVs as well as many other manufacturers', some of the TVs will not operate or some functions available on the TVs will not work with this remote control.

1 Set Code

1 Press and hold TV POWER.
2 Press two Number buttons for the manufacturer's code number of your TV, referring to the table to the right.
- For example, for 02, press 0 then 2.
- The remote control can now operate the TV of the selected code.

2 Confirm Setting

Press TV POWER, pointing the remote control at the TV.
If the TV turns on or off, your setting is completed.
If not, repeat steps above, using another code.

After replacing the batteries
You need to reset the manufacturer's code again.

Note:
The buttons you can use to operate your TV are explained on page 6.

TV Manufacturers' Codes	
PHILIPS	01, 02, 03
EMERSON	14
GOLDSTAR	04
GRUNDIG	24, 25
HITACHI	12
JVC	05
MITSUBISHI	13, 26
PANASONIC	07, 17, 19, 20
RCA	10
SAMSUNG	18
SANYO	11
SHARP	16
SONY	09
THOMSON	21, 22, 23
TOSHIBA	08
ZENITH	06, 15

BEFORE REQUESTING SERVICE

Check the following points once again if you are having some difficulties with your VCR.

IMPORTANT

Periodic maintenance is required in order to maintain the VCR's continuous excellent performance. After a period of time the video heads will require replacement. If cleaning or replacement of the video heads is required, this service should be performed at an authorized video system service center.

Power	Correction
No power.	• Make sure the AC power cord is correctly connected to an AC outlet. • Make sure the VCR is turned on.

Recording & Playback	Correction
TV programme cannot be recorded.	• Check the connections between the VCR, the antenna, and the TV. • Make sure that the record tab on the back of the cassette is not removed. (☞P.22)
Timer recording cannot be performed.	• Set the timer on-time and timer off-time correctly. (☞P.29, P.30) • Make sure that the VCR is turned off after setting is made. (☞P.29, P.30) • Timer recording may not be performed or stopped if a power interruption occurs before or during timer recording. If the power resumes within ten minutes, timer recording will also resume.
There is no playback picture, or the playback picture is noisy or contains streaks.	• Select your video channel correctly. (☞P.14) • Adjust the tracking slowly in either direction. (☞P.23)
During a still or slow motion picture, the picture may contain some vertical jitter when using a TV which has an automatic vertical hold control.	• Adjust the vertical hold control manually on the TV, if available.
If the top of your playback picture waves back and forth excessively.	• Because the VCR playback signal is not as stable as an off-the-air TV signal, the top of your TV screen may be bent or unstable during playback. To solve this problem, slowly turn the horizontal hold control on your TV to correct the wavy picture. If your TV does not have the horizontal hold control or adjusting the control does not help, contact your local TV service center.

Remote Control	Correction
The remote control cannot work.	• Aim the remote control directly at the remote sensor on the VCR. • Avoid all obstacles which may interfere with the signal path. • Inspect or replace the batteries. (☞P.7) • Make sure the batteries are inserted correctly. (☞P.7)

BEFORE REQUESTING SERVICE (CONTINUED)

Miscellaneous	Correction
A cassette cannot be inserted.	• Insert the cassette with the window side up and the record tab facing you. • Check that a cassette tape is not already inserted. Press EJECT ⏏.
The cassette does not eject.	• Make sure the AC power cord is correctly connected to an AC outlet. • If the ◴ (Timer) indicator is lit on the display, press VCR POWER or STANDBY/ON to cancel timer recording, then press EJECT ⏏.
The cassette ejects when you press RECORD, or when you press VCR POWER or STANDBY/ON to set timer recording.	• Make sure the record tab on the back of the cassette is not removed. (☞P.22)

SPECIFICATIONS

General

Mains voltage	AC 220 – 240V∿ (AUTO)
Mains frequency	50/60Hz
Power consumption	
Power ON	Approx. 24 W
Power OFF	Approx. 5.5 W
Power Save Mode	Approx. 3 W
Ambient temperature	+5°C to +40°C
Relative humidity	10% to 80%
Dimensions	Approx. 435(W) x 94(H) x 343(D) mm
Mass	Approx. 4.8kg
Position for use	Horizontal
Video output channel	UHF E36 (adjustable between 22 — 69)
Possible number of TV channel	99
Number of pre-programmable memory blocks	8
Number of days in advance	365 or every day, or every week

Tuner

Aerial input	PAL I
VHF L:	47 — 89 MHz
VHF H:	104 — 300 MHz
	302 — 470 MHz
UHF:	470 — 862 MHz
	CATV

Video

Input (VIDEO IN)	0.5 to 2.0 Vp-p, 75 ohms
Output (VIDEO OUT)	1.0±0.2 Vp-p, 75 ohms
Resolution	250 lines (VHS)
	400 lines (S-VHS)
Signal/noise ratio	Better than 45 dB

Audio

Input (AUDIO IN)	–8 dBs, 50k ohms (0dBs=0.775 Vrms) – for RCA connector
	–8 dBs, 10k ohms (0dBs=0.775 Vrms) – for SCART connector
Output (AUDIO OUT)	–8 dBs, 1k ohms (0dBs=0.775 Vrms)

Accessories supplied

Remote control unit
RF coaxial cable
Batteries – R6(SUM-3)/AA (only for checking operations)

2000

Design and specifications are subject to change without notice.